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IN THE CIRCUIT COURT OF THE 11TH JUDICIAL
               CIRCUIT IN AND FOR DADE COUNTY,
 2
                            FLORIDA
                 GENERAL JURISDICTION DIVISION
 4
                   CASE NO: 91-49738 CA(22)
                     FLA. BAR NO: 068445
 5
    NORMA R. BROIN, MAJOR MARK L. BROIN,
 6
    USMC, her husband, BETTY YOUNG, as
 7
    Personal Representative of the Estate
     of ALFRED LEE, deceased, MICHAEL COY,
    as Personal Representative of the Estate
    of CAROL ANN COY, deceased: LINDA D.
    ANDERSON; MILDRED MCQUOWN; COLLEEN STEVENS;
    PATRICIA YOUNG; MARILYN MITTAN; PATRICIA
10
    CRITTENDEN; NANCY FOSSEY STRICKLAND;
    DONNA O'NEIL; LYNNE MARIE BLINCO; TERRY
    CASTO; DENNIS STANLEY; JUDY LEE; YVONNE
11
    TREASURE; PAMELA L. JOHNSON; DAVID
12
    JOHANSON; KAREN MCNALLY; JILL M.
    APPLEGATE; SHARON C. MILLER; LANI BLISSARD;
13
    ELOISE SMITH; MARISA L. MITCHELL; PAMELA J.
    OROZCO and GREGORY SCOTT STRANG on
14
    behalf of themselves and all others
     similarly situated,
15
                         Plaintiffs,
16
               v.
17
     PHILIP MORRIS INCORPORATED, ("PHILIP MORRIS
    U.S.A."), PHILIP MORRIS PRODUCTS, INC.,
18
    R.J. REYNOLDS TOBACCO COMPANY, LORILLARD,
    INC., LORILLARD TOBACCO CO., BROOKE GROUP,
19
    LTD, DOSAL TOBACCO CORP., THE AMERICAN
    TOBACCO COMPANY, LIGGETT GROUP, INC., BROWN
20
     & WILLIAMSON TOBACCO, UNITED STATES TOBACCO
    CO., FLORIDA TOBACCO AND CANDY ASSOCIATION,
21
    NATIONAL ASSOCIATION OF TOBACCO DISTRIBUTORS,
2.2
    TOBACCO INSTITUTE, INC., COUNCIL FOR TOBACCO
    RESEARCH-U.S.A., INC., and TOBACCO MERCHANTS
23
    ASSOCIATION OF UNITED STATES, INC.,
2.4
                         Defendants.
25
1
               Deposition of CATHY LYNN ELLIS, PHD, taken
 2
    by and before Sally Valentine Qualls, Notary Public
    in and for the Commonwealth of Virginia at large,
    pursuant to Notice or Agreement; commencing at 9:11
 5
    a.m., May 28, 1997, at the law offices of Hunton &
 6
     Williams, 951 East Byrd Street, Richmond, Virginia.
 7
 8
9
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11
12
13
14
15
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                    Reported by: Sally Valentine Qualls
       25
3
        1
        2
            APPEARANCES:
        3
        4
                      STANLEY M. ROSENBLATT, P.A.
        5
                      By: JOHN A. HOAG, ESQUIRE
                      attorney, of counsel for the Plaintiff
        6
                      Via Telephone
        7
        8
                      SHOOK, HARDY & BACON
                      By: GREGORY L. FOWLER, ESQUIRE
        9
                      (1200 Main Street, Kansas City, Missouri)
                      attorney, of counsel for the Defendant
       10
                      Philip Morris
       11
       12
       13
       14
       15
       16
       17
       18
       19
       20
       21
       22
       23
       24
       25
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                            CATHY LYNN ELLIS, PHD
        4
            Examination By:
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                       Mr. Hoag
                                                    5
        6
        7
        8
        9
       10
       11
       12
                                     000
       13
       14
       15
       16
       17
       18
       19
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       20
             Plaintiff's
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             1 Documents
       22
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24
       25
5
                      MR. FOWLER: John, first of all, I'll
        1
            identify who is in the room. I am Gregory L. Fowler,
        2.
            with the law firm of Shook, Hardy & Bacon. Sitting
        3
            to my left is Dr. Ellis, and the court reporter is
        5
            here, Sally Valentine Qualls.
        6
                      And I wanted to just state for the record,
        7
            John, I know that you have received a copy of
            Dr. Ellis' expert statement or report in this case,
        8
        9
            and I just wanted to let you know that in addition to
            that, that Dr. Ellis will be ready to respond to
       10
       11
            questions and provide testimony affirmatively
       12
            concerning the allegations raised by Ray Morgan in
            his deposition in this case.
       13
       14
       15
                           CATHY LYNN ELLIS, PHD,
       16
                    was sworn and testified as follows:
       17
                                 EXAMINATION
       18
            BY MR. HOAG:
       19
                   Okay. Could you state your name for the
                Q
       20
            record, please?
       21
                     Cathy Lynn Ellis.
       22
                      MR. FOWLER: And John, if I could interrupt
       23
            for one moment, are you with anyone right now or is
       24
            it just yourself?
       25
                      MR. HOAG: Just me.
6
                      MR. FOWLER: So I think we have identified
        1
        2
            everybody who is listening to these words. Thank
        3
            BY MR. HOAG:
                     Okay. And have you ever been deposed
        5
             Q
        6
            before?
        7
                      Yes.
                 Α
        8
                 Q
                     How many times?
        9
                 A
                     Once.
       10
                 0
                     Excuse me?
       11
                 A Once.
       12
                     And what were the circumstances under which
                 Q
       13
            you were deposed one other time?
       14
                 A
                     It was in March of this year for the
       15
            Mississippi case.
       16
                Q The Mississippi attorney general's --
       17
                 A Correct.
       18
                     -- case?
                 0
       19
                 A Right.
       20
                     And who deposed you?
                 Q
       21
                     Ron Motley and Anne Ritter.
                 Α
       22
                 Q And how long were you deposed for?
       23
                 A Day and a half.
       24
                      Okay. And how long did you prepare for
       25
            that deposition prior to it taking place?
        1
                      MR. FOWLER: I'm going to object on
        2
            vagueness.
            BY MR. HOAG:
        3
        4
                 Q
                      You can answer. How many hours did you
        5
            spend preparing for that deposition?
                A I find that very difficult to answer,
            because I think that one's education and experience
```

```
throughout their whole life is obviously going to
9
    come into play in a deposition. So I think that most
10
    of my experience in my life and my work history and
11 all of the things that I have read over the years
    were preparation for it.
12
13
             Did you meet with attorneys prior to giving
         Q
14
     that testimony?
15
         A Yes.
         Q
16
              I didn't hear you.
17
             Yes.
         Α
18
         Q And how many times did you meet with
19
    attorneys prior to providing that testimony in the
    deposition for Mississippi?
20
             Specifically for that case, one day in
21
22
    Texas a few weeks before and then the three days
23
    before the deposition.
24
        Q One full day in Texas and then also three
25
    days before the deposition?
1
         Α
              That's correct.
 2
              Okay. And what attorneys did you meet with
    one, the one full day -- who did you meet with?
 3
         A It was Vineet Bhatia, Bill Myer,
 4
 5
    Mr. Sussman, Evan Herwitz and Sue Hendrickson, are
 6
    the ones that I can remember.
7
         Q And what did you do for that one full day?
              MR. FOWLER: I'm going to object. I'll
8
    allow the witness to answer questions concerning who
9
    was involved and when, but in terms of substance,
10
11
    I'll caution the witness that anything that was
12
    discussed during those preparation sessions are
13
    attorney/client privileged communications, and you
14 ought not reveal the substance of any of those
    communications, but you can go ahead and answer the
15
    question to the extent that it doesn't get to those
16
17
    matters.
              MR. HOAG: So to the extent that the
18
19
    witness isn't going to answer about what happened
    during the preparation session, what she said, what
20
21
    she did, and what her responses were, I will certify
22
    all of those questions. So --
23
              MR. FOWLER: Just to be clear, John, I'm
24
     just telling her that she cannot relate the
25
    conversations, the material related to her directly
1
    by the lawyers. I mean, she can tell what she
    reviewed and those sorts of things, but I'm just
 2
 3
     saying that she can't reveal the substance of what
 4
    the lawyers told her.
 5
              MR. HOAG: Well, again, any questions that
 6
    she doesn't answer related to this, I will certify
 7
    those questions.
    BY MR. HOAG:
 8
9
              So for the hour that you spent, for the
10
    full day that you spent with these numerous
    attorneys, what did you do?
11
         A Well, there were parts of the day that were
12
13
    involved in preparing the list of documents and
    things that I would rely on. There were parts of the
14
15
    day that were involved in putting together opinions,
16
    and there were parts of the day that were involved in
17
    reviewing testimony and practicing some of the
18
    questions.
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So part of the day you reviewed testimony
       20 and you practiced some of the questions. Now, when
       21 you say, practiced some of the questions, do you mean
       22 somebody questioned you and you answered?
               A That's correct.
       23
                   So you practiced a deposition, correct?
       24
               Q
               A
       25
                    Yes.
10
        1
               Q Who asked you the questions?
                A Any variety of individuals.
        2
        3
                Q So it was more than one at a time?
               A That's correct. It was -- generally it
        5 would be one person doing a group of questions, then
        6
           another person doing another group of questions.
        7
               Q And after you answered, did they suggest
        8
           other ways to answer?
        9
                    MR. FOWLER: I will object to the form of
       10 the question.
       11 BY MR. HOAG:
       12
            Q You can answer. Did the attorneys ever
       13
           suggest ways to answer the questions?
       14
              A In substance, no.
                    When you say, in substance, no, what do you
       15
       16
           mean?
       17
           A In substance the answers were mine.
       18
               Q Okay. When you answered a question, did
       19 they ever tell you not to answer it that way --
       20
              A
                    No.
       21
                    -- during the practice session?
       22
                Α
                    That's what I mean, no.
       23
               Q Okay. So the attorneys never told you not
       24 to answer a question in a certain manner; is that
       25 correct?
11
                A In substance, no. Manner, style is
        1
           different. In substance, in terms of content, no.
           Q What did they tell you about your manner
        3
        4
           and style?
        5
            A Things about going slow, making sure you
        6
           know the question, those kinds of things.
        7
            Q So they told you to speak slowly and make
        8 sure that you know the question?
       9
                A That's correct.
                    And did they tell you anything else?
       10
       11
                A
                    Maybe in the process, but I can't recall
       12 right now.
       13 Q Okay. So part of what you did was you went
       14 over a list of documents. Were any of the documents
       15 provided to you by the attorneys?
                    MR. FOWLER: I'm going to object. That's
       16
       17
           vague. I'm not sure what question you're asking,
       18
           John.
       19 BY MR. HOAG:
       20
           Q Were any of the documents provided to you
       21 by the attorneys, ma'am?
       22
               A In the course of the preparation, I mean,
       23
           in the review?
       24
               Q Yes.
       25
                    Provided in what way? I mean, sometimes
12
        1 questions were asked about documents.
               Q Provided in what way?
                A Well, yes. I mean, I'm not sure I
```

```
understand your question.
 4
 5
            MR. FOWLER: I'm going to object.
   doesn't understand what documents you're talking
 6
7
    about. You haven't identified what types of
    documents you're talking about. It's a vague
9
    question.
    BY MR. HOAG:
10
11
    Q Talking about the specific documents that
12
    you told me that you prepared a list of, documents
13
    when you were with the attorneys.
14
              MR. FOWLER: John, we faxed to you a list
15
    of the literature upon which Dr. Ellis might rely for
    her opinions in this case, and we faxed that off.
16
17
    That's the list that she's talking about. It's just
18
    a list of --
19
    BY MR. HOAG:
20
        Q Dr. Ellis, let me ask you questions here.
21 The list of documents that you provided to us, did
22 you prepare that list yourself?
23
    A I'm not aware of what list was provided to
24
    you, so I really can't address that.
25
         Q
              So --
              I did provide and I did put together lists.
1
 2
    Now, whether or not that was the same, I assume it
 3
              MR. FOWLER: And just so it's clear, John,
 4
    we're talking about publicly available, published
 5
    literature that was put together by Dr. Ellis. We
 6
 7
    sent you a copy of the same things that we sent to
8
    the attorneys in the Moore case in response to the
9
   agreement we had to provide information or literature
10 upon which the experts would or might rely.
             MR. HOAG: Greg, I would really appreciate
11
12
   it if you would let me ask the questions to the
13
    witness rather than you answer the questions. We
14
    don't --
              MR. FOWLER: I'm trying to explain.
15
              MR. HOAG: I don't need you to explain. I
16
17 want the witness to explain.
18 BY MR. HOAG:
19
        Q Now, Dr. Ellis, you told me that you don't
20 know what documents we were sent; is that correct?
21
    And by we, I mean the law office of Stanley
22
    Rosenblatt.
23
            I did not personally send them.
         Α
24
             Did you prepare a list of documents that
25
    were going to be sent to the law office that I work
1
    for?
 2
             I did not personally put together a list
    specifically for that. It is my understanding that
 3
    the same list that was put together for the previous
 4
 5
    case was sent.
 6
         Q Did you prepare that list?
 7
             I was involved in preparing it, yes. And
    it was prepared not just in one day. Obviously there
 8
9
    were many, many hours that went into literature
    searches and reviews in getting those documents put
10
11 together.
12
     Q You said you were involved in preparing the
13 list. Who else was involved?
        A Some of the people on my staff, some of the
```

```
people in the library and other folks that did
       16 provide documents on relevant issues.
       17
                Q Now, you said it was a literature search;
       18 is that correct?
       19
                A What was a literature search?
       2.0
                    Well, that's what I want to know. You just
       21 told me there was a literature search that was done
       22
            to prepare this list of documents, correct?
       23
                A
                    Yes.
                     MR. FOWLER: I'm going to object to the
       24
       25 reference to documents. We're talking about
15
           literature, not documents.
        1
        2
           BY MR. HOAG:
                    Is that correct, ma'am?
        3
                Q
        4
                Α
                     Yes. We reviewed the literature --
        5
                     MR. FOWLER: Same objection.
                     THE DEPONENT: -- to prepare that list.
        6
        7 BY MR. HOAG:
        8
                   When you say, we, it was numerous people
        9
            and not just you, correct?
                    That's correct.
       10
                Α
                Q
                     And it included attorneys, correct?
       11
       12
                A Some of the attorneys were involved, yes.
       13
                    Okay. And did the attorneys sometimes
       14 select what literature would be included on that
       15 list?
                     I had reviewed all of the information and
       16
          had, basically had reviewed over a long period of
       17
       18
            time all the information that was involved on that
       19
           list.
       20
                    How many articles are on that list, ma'am?
              Q
       21
                A Oh, I would not even want to hazard a
       22
            quess.
               Q Have you read all of those articles?
       23
                A Yes. I have reviewed most of them, yes.
       24
       25
                     Some of them you have not read; is that
16
        1 correct?
        2
                A Not completely.
        3
                    So you had not completely read all of the
        4 articles on the list of articles that you're going to
        5
           rely on, correct?
                A
        6
                     Correct.
        7
                0
                     How are you going to rely on them if you
        8
           haven't read them?
        9
                A The issue here is that the complete
       10 literature is provided and is considered to make the
       11 best judgment possible on any question brought forth,
       12
            and that is what that list represents.
       13
                Q When you say, the complete literature, what
       14 do you mean?
       15
                A Well, the complete literature is that that
       16 I think is pertinent to some of the issues that I am
       17
            supposed to be testifying on, and I think that it's
       18
            appropriate to look at the complete literature to get
            an understanding of the broad based base of
       19
       20
            information that's available on the topics before an
          opinion is rendered.
       21
       22
                 Q Are you prepared to render opinions today?
       23
                    In some situations, yes, in other
       24 situations, I would have to review more specifically
       25 the question at hand.
```

```
If you -- but you haven't prepared to
            render all the opinions you're ready to render at
            trial; is that correct?
                      MR. FOWLER: I'll object, she said she's
        5
            ready to respond to questions.
            BY MR. HOAG:
        6
        7
                      You don't intend to render opinions that
        8
            you haven't done all the research that you need to
        9
            do --
       10
                     Absolutely not.
                     So anything that I ask you today, you're
       11
            not going to do additional research to answer it
       12
       13
            later; is that correct?
       14
                A I don't know what you're going to ask me
       15
            today.
       16
                     So there may be things that you're going to
       17
            research after I ask you --
       18
                     MR. FOWLER: I object to that, that's a
            partial hypothetical. Let's ask the questions and
       19
       20
            see what the answers are.
       21
                      MR. HOAG: Greg, you can object, but I can
       22
            ask the questions.
       23
                      MR. FOWLER: That's what I'm suggesting
       24
            that you do.
        25
                      MR. HOAG: That's what I'm trying to do,
18
            Greg. Obviously you don't want me to.
        1
                      MR. FOWLER: No, I would like you to ask
        2
        3
            the questions. I would like for you to get there.
        4
            BY MR. HOAG:
        5
                     So there's going to be questions that I ask
                 Q
        6
            you that you're going to do research about later
            rather than now; is that correct?
        7
                      MR. FOWLER: I object to the form of the
        8
        9
            question. It's misstating her testimony.
       10
            BY MR. HOAG:
       11
                      Is that correct, ma'am?
                 0
       12
                      I would certainly take advantage of all
                 Α
       13
            information that is available to me and would not
       14
            eliminate any information that became available to me
       15
            at any time, in order to render an opinion based on
            the current information. So therefore, if
       16
            literature, a report or a document comes available to
       17
       18
            me tomorrow, I would consider it, and I think that's
       19
            appropriate.
       20
                     Okay. Referring to your list of documents
       21
            that were faxed to us, did you know it was 118 pages
       22
            long? Did you know that?
       23
                      MR. FOWLER: Object to the form of the
        24
            question. It's not documents, it's literature.
        25
19
        1
            BY MR. HOAG:
                 Q Did you know that, ma'am?
        3
                     Like I said before, I cannot say how many
            pages it was. I did not count the pages, nor did I
         4
         5
            memorize how many was in the original.
                Q You don't know how many pages were sent to
        6
        7
            us and you don't know how many total journal articles
        8
            or other literature were on there; is that correct?
        9
                A I know there were a lot.
       10
                 Q
                     Do you have that in front of you now?
```

```
11
                 Α
                     No.
       12
                     You don't have it with you now, the 118
                 Q
       13 pages of articles and literature you're going to rely
       14 on; is that correct?
       15
                A I don't.
       16
                    Is that correct?
                Q
       17
                     That's correct.
                 Α
       18
                     Okay. Well, on page 4 of the 118-page list
       19
           that you're going to rely on, number 55 is an article
       20 called, Smoking in Rebelliousness, a Longitudinal
       21 Study from Childhood to Maturity. Have you read that
       22
            article?
       23
                     MR. FOWLER: I object to the form of the
       24
            question.
       25
20
           BY MR. HOAG:
        1
        2
               Q Have you read that article?
        3
                A Not thoroughly, no.
        4
                 Q Do you know what year it was published?
                A No, I definitely don't.
        5
        6
                     Do you know what journal it was published
                Q
        7
            in?
        8
                     MR. FOWLER: I'm going to object. That is
           a long list of literature. This isn't a memory
        9
       10
            contest.
       11 BY MR. HOAG:
       12
               Q Do you know what journal it was published
       13
            in, ma'am?
       14
                A No, I don't.
       15
                     Do you know anything at all about what the
                0
       16
            article is about?
       17
                    Smoking in rebelliousness.
       18
                     That's the title of the article. Do you
           know anything at all about the article?
       19
       20
                     MR. FOWLER: Object to the form of the
       21 question.
                     THE DEPONENT: I do not recall.
       22
       23 BY MR. HOAG:
       24
               Q So if I asked you specifically about the
       25
           articles that are in this 118-page list, your answers
21
        1
            are likely to be similar to the one I just asked; is
        2
            that correct?
        3
                     MR. FOWLER: Object to the form of the
        4
           question.
        5
                     THE DEPONENT: Depends on which article
        6 you're talking about.
           BY MR. HOAG:
        7
        8
               Q Which articles are you familiar with that
            are on that 118-page list?
        9
       10
                     MR. FOWLER: Object to the form of the
       11
           question.
            BY MR. HOAG:
       12
       13
                Q You can answer.
       14
                A Which specific articles?
                   Yes.
       15
                 Q
       16
                     I'm familiar with quite a few of them, but
            obviously I don't have the list in front of me, and I
       17
       18
           usually rely on the, look at the data in order to
       19
          provide opinions, rather than rely on memory. There
       20
           is, as you know, a lot of information in that list.
       21
                 Q You usually rely on looking at data in
```

```
22 order to answer questions?
       23 A Absolutely.
       24
               Q
                    You didn't even bring the list with you
       25
           today?
22
        1
                    MR. FOWLER: Look, that's inappropriate, an
          inappropriate question. I object to that.
           BY MR. HOAG:
            Q
        4
                    And you didn't bring the list with you
        5
           today, ma'am?
        6
                    MR. FOWLER: You didn't ask her to.
        7
                    THE DEPONENT: The list does not include
        8
           data.
       9
          BY MR. HOAG:
       10
           Q Did you bring copies of these articles with
       11 you?
       12
               A
                    I did not.
       13
                    In other words, to answer questions about
       14 the contents of the articles, would you need the
       15 articles in front of you, ma'am?
       16
                    Yes.
                   Did anyone instruct you not to bring
       17
       18 anything with you today?
       19
                    MR. FOWLER: Object to the form of the
       20 question.
       21 BY MR. HOAG:
       22
               Q
                    You can answer.
               A Not that I recall.
       23
                    Somebody may have, but you don't remember?
       24
       25
                    MR. FOWLER: Object to the form of the
23
        1 question.
        2 BY MR. HOAG:
        3
               Q Is that right, ma'am?
                A
                    I don't recall that being discussed.
        4
                  What is your current occupation?
        5
               Q
               A I'm senior vice president of R and D.
        6
               Q R and D means what, ma'am?
        7
        8
               A Research and development.
       9
               Q Research and development for what company?
       10
               A Philip Morris, USA.
       11
               Q And how long have you held that position?
               Α
                    Since October of 1996.
       12
       13
                Q
                    Okay. And what is your salary in that
       14 position?
       15 A It's a little bit over $200,000.
       16
                    When you say, a little bit over, how much
       17 over?
       18
                    I think it's within 210; around there.
       19
                   Okay. And was that your salary as of
       20 October of 1996 or have you received any pay raises
       21 since October of 1996?
       22
               A No, I just received a pay raise with
       23
           everybody else. It occurred March 1st or April 1st.
       24
               Q What was that raise?
       25
                A That's included in that figure.
24
        1
                    What was your salary prior to the raise?
        2
                Α
                    It was a 7 percent increase, I know that,
        3 but I don't know the actual amount.
        4
               Q So was your salary prior to the raise about
        5
           $200,000?
        6
               A It was under 200,00.
```

```
So with the 7 percent increase in March,
8
    it's a little bit more than 200,000?
9
        A That's correct.
10
             And did you receive any bonus?
11
             MR. FOWLER: Object to the form of the
12
    question. That's vague.
             THE DEPONENT: When? I mean, yes, I have
13
14
    received bonuses.
15
    BY MR. HOAG:
16
             Did you receive any bonuses in the past 12
    Q
17 months?
18
     A
            Yes.
19
         Q What bonuses or bonus?
20
        A We have an annual incentive compensation
   program, and I received that bonus the end of
21
22 January.
23
    Q And how much was your bonus?
24
        A
            As I recall it was, before taxes, around
25 $80,000.
1
        Q And you say, annual incentive program.
    What is that?
 3
        A It's a program that employees at certain
 4
    grade levels are eligible for; that is basically to
 5
    provide incentive compensation on an annual basis to
    those employees.
           And what is the criteria for receiving
7
        0
8
   incentive compensation?
9
        A There are set criteria in terms of
10
    individual performance, department performance,
11 company performance.
12
     Q And what are the criteria for company
13
    performance?
14
    A It relates to obviously how well the
15
    business is doing.
    Q When you say, how well the business is
16
17
    doing, what do you mean?
18
        A Meaning financial measures.
19
         Q For example?
20
         A For example, income from operations or
21 profits or work on certain issues. Basically relates
22 to how well the business is running, and there are a
   lot of measures for that.
23
        Q Okay. So the profitability of the company
24
25
   comes into play for decisions regarding bonuses; is
1
   that correct?
 2
            MR. FOWLER: Object to the form of the
 3 question.
 4
    BY MR. HOAG:
        Q Is that correct?
 5
 6
        A I don't make those decisions, but yes,
7
    that's some of the criteria. Yes.
8
     Q So the more profitable the business is, the
9
    more likely you'll receive a bonus; is that correct?
10
             MR. FOWLER: Object to the form of the
11
    question.
             THE DEPONENT: Yes.
12
13
    BY MR. HOAG:
14
        Q Is there some kind of weighted measurement
15 for how much profit the company receives in order to
16 determine how much of a bonus you will receive?
17
        A No, that would be considered in the
```

```
deferred profit sharing program.
                Q So the deferred profit sharing --
       19
       20
                     Is a different program.
       21
                     Tell me about the deferred profit sharing
       22
            program.
       23
                     Well, all salaried employees are eligible
       24
            for the deferred profit sharing program. And that is
       25
            based on the amount of profits, and there is a cap on
27
        1
            that.
        2
                 Q
                     And what is the cap on it?
        3
                     Fifteen percent of your salary.
                 A
        4
                     How much?
                 Q
                     Fifteen percent.
        5
                 Α
        6
                 Q
                     Okay.
        7
                 Α
                     I'm sorry, of the profits.
        8
                     I'm sorry. I think I misunderstood part of
                Q
        9 your answer.
       10
            A
                     Fifteen percent of the profits, I think, is
       11
            the cap.
                     MR. FOWLER: John, could you hold on for a
       12
            second? Somebody has entered the room. We need to
       13
            answer a question. I apologize for interrupting.
       14
       15
                      (Recess taken)
       16
                      MR. FOWLER: John, you can go ahead.
       17
                      MR. HOAG: Okay. Is there anyone new in
       18
           the room?
                      MR. FOWLER: No, the secretary who arranged
       19
       2.0
           the conference room just came up to make sure that
       21
            everything was okay.
       22
           BY MR. HOAG:
                Q Okay. Well, I'm going to need to ask you a
       23
       24
            few clarification questions on the deferred profit
            sharing program. You said there is a 15 percent cap
       25
28
            on the amount of profits; is that what you said?
        1
                      MR. FOWLER: I object to the form of the
        2
        3
            question.
                      THE DEPONENT: No, I think that's required
        4
        5
            by law, that only 15 percent of the profits can go
            into an employee's deferred profit sharing program.
        6
        7
            BY MR. HOAG:
                     Okay. So for example, if the company made
        8
        9
            $100,000,000 in profits, $15,000,000 of it could go
       10
            into deferred profit sharing?
       11
                 Α
                     Again, I'm not involved in the
       12
            administration of that program, so I would not want
       13 to pass judgment on that statement.
       14
                     Okay. What benefits did you receive in the
       15
            past 12 months on the deferred profit sharing
       16
            program?
       17
                     I really don't recall. I get a statement
       18
            at home, and it goes into, obviously, a tax shelter.
       19
            And I cannot recall those figures at this time, or
       20
            when they're credited.
       21
                 Q Do you get a certain percentage of the
       22
            profit that Philip Morris receives as part of its
       23
            deferred profit sharing program?
       24
                 A I don't understand your question.
       25
                      What exactly is the formula that you, that
29
            is applied, in other words, to provide you with
            compensation under the deferred profit sharing
```

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program?
             My understanding -- and this may or may not
    A
 5
   be absolutely correct, my understanding is that there
    is a total cap on the amount of profits that can go
    to employees, and it's divvied up based on an
7
8
    employee's salary.
9
             Okay. So if you make $50,000 a year, for
         O
10
    example, you would get one-fourth as much as a person
11
    who makes $200,000 a year; is that correct?
12
         A Those specifics -- I really don't know what
13 the formula is.
14
        Q Do you get more if you make more money in
15
    your base salary?
16
         A I would expect so, yes.
17
             Okay. And you get, do you receive an
18
    annual statement from the company on how much you've
    received from deferred profit sharing?
19
20
         A Actually, I think it's a quarterly
21 statement, because the funds, you can switch funds
22 from different categories; stocks or bonds or just a
23
    general interest fund.
24
    Q So part of the deferred profit sharing
25
    program includes stock in Philip Morris?
1
             It can. That's one of the options that an
    individual can select to put their money.
3
             Did you select that option?
             Some of my funds are in Philip Morris
 4
 5
    stock, yes.
 6
         0
              What percentage?
7
         A
             I really don't recall at this time.
8
             Is it more than half of the profit sharing
9
    amount, more than 50 percent?
        A My understanding of how it was handled is
10
    that most of it was in Philip Morris stock, and that
11
12
    in 1993 when Marlboro Friday occurred and the stock
    went down, I kept all of those funds in Philip Morris
13
    stock, but all new contributions went and were
14
15 separated out into other funds. Therefore, it is a
16 very complicated mix at this time and is dependent on
17 contributions, since 1993, and I can't recall the
18 exact figures.
        Q What is the approximate value right now of
19
20
    your deferred profit sharing program?
21
         A It's in the range of about $400,000 to
22
    $500,000, as I recall.
23
             And the value of the deferred profit
24
    sharing program can go up or down, depending upon the
25
    value of Philip Morris stock at the time; is that
1
    correct?
 2
             Or there is a general equity fund which
         A
 3
    represents the stock market, and yes, it is dependent
    on the stock market, too, and how much you have
 5
    allocated into the various funds.
 6
              Okay. Right. Now, as we speak is over 50
 7
    percent of your deferred compensation program money
 8
    invested in Philip Morris stock?
9
              MR. FOWLER: Objection, asked and answered.
10 BY MR. HOAG:
11
       Q You can answer.
        A Again, I don't recall the exact figures.
13
        Q Do you know whether it's more than 50
```

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14
          percent?
       15
                    MR. FOWLER: Objection, asked and answered.
                     THE DEPONENT: Again, I don't recall the
       16
       17 exact figures.
       18 BY MR. HOAG:
       19
            Q You talked about 1993 Marlboro Friday.
       20
            What was that?
       21
                    Marlboro Friday was the day that we decided
       22 to lower the price of Marlboro and other premium
       23 brands.
       24 Q
                     And did something happen to the stock price
       25 as a result of that?
32
                    Absolutely.
        1
                A
        2
                Q
                    What?
        3
                Α
                    Went down dramatically.
        4
                Q And how much did it decrease by?
        5
                    MR. FOWLER: You know, I'm going to object
        6
          that this line of questioning is irrelevant.
        7
           BY MR. HOAG:
                Q
                    How much did it decrease by?
        8
                    At the time I think it -- Gee, the exact
        9
           figures again, I can't recall, but it decreased
       10
       11 substantially, within 10 or 20 points, as I recall at
       12 this time.
       13
               Q And has it ever recovered; gone back up?
       14
                    Yes. Absolutely.
                A
                Q What's the current trading amount now for
       15
       16
          the stock?
       17
               A Well, it was split since then. And
       18 currently, I think, as of yesterday it was about 44.
       19
            Q When you say, it's split since then, what
       20
           do you mean?
                     There was a split earlier this year; three
       21
            A
       22 for one.
       23
                Q Okay. So if you had one stock you then had
            three, once they split; is that correct?
       24
                A That's right.
       25
33
        1
                    Okay. So whatever number of stocks that
           you had, you've got three times that amount now; is
           that correct?
        3
                    That's correct.
        4
                A
                    Do you know approximately how many shares
        5
        6
           of Philip Morris stock you have?
        7
                A No. I have options. I have restricted
        8
            stock, and I have some stock through another program,
        9
            so I really couldn't give you an exact figure.
       10
                    When you say, options, what do you mean?
       11
                    Well, there's a stock option program.
                Α
       12
                     Is that part of the deferred compensation?
                Q
       13
                     No.
                Α
       14
                     Is that part of the deferred profit sharing
                Q
       15 program?
       16
                A No.
       17
                    Did you answer?
                Q
                    Yes, I said no.
       18
                Α
       19
                     I'm sorry. I can't always hear your
          answer. That's why I'm asking if you've answered.
       20
       21
               A No, it's not a part of either one of those.
       22
                     Okay. So what stock option program -- how
                Q
       23 does that work?
       24
               A Basically it's a program again available to
```

```
employees at certain grade levels and above. And
34
        1
            again, it's based on their longer term potential in
            contributing to the company and their performance.
                     What grade levels, beginning at what grade
        3
            level would that be available?
        4
                 A We call it hay grade 14, H-A-Y.
        5
        6
                      What hay grade are you?
        7
                     What hay grade am I? I'm not a hay grade.
                 Α
        8
            I'm in a banded category.
        9
                Q What does that mean?
                     It means that they have combined grades at
       10
            the higher levels in the corporation and basically
       11
       12
            have allowed for mobility and movement and
       13
            flexibility.
       14
                 0
                      What would be the banded category -- how
       15
            many grades of banded?
                 A I really am not an expert at this, because
       16
       17
            it is a new program. I believe I'm in Category F. I
       18
            don't know that for sure.
       19
                      That's the equivalent to somebody higher
       20
            than hay grade 14, correct?
       21
                 A
                     Yes.
       22
                     Which makes you eligible for the options
       23
            program, correct?
       24
                     Yes.
                 A
       25
                 0
                     Is that correct?
35
                     Yes.
        1
                 Α
        2
                 0
                      How long have you been eligible for the
        3
            options program?
                 A Since the late 1980s.
        4
        5
                     Did you take advantage of that at the
            beginning when you were first eligible?
        6
        7
                 A It is not up to the choice of the
            individual. It is awarded by your supervisor, based
        8
        9
            on, again, your long term potential contribution and
            your performance.
       10
       11
                      So has it been awarded to you since the
                Q
       12 late 1980s?
       13
                 Α
                     Yes.
       14
                     Consistently every year?
                     Yes.
       15
                 Α
       16
                 Q
                     Is it awarded on a yearly basis?
       17
                 Α
                     Yes, it has been. It's not guaranteed.
       18
                 Q
                     But so far you have received it every year;
       19
            is that correct?
       20
                A
                     Yes.
       21
                     Is that correct?
                 O
       22
                     Yes.
                 Α
       23
                    I think what happens is if there's papers
       24
            moving when you answer the question, it doesn't come
       25
            across, so I apologize for asking it more than once
36
            if you've answered a question; it's really because I
            haven't heard it.
        2
        3
                      MR. FOWLER: John, no problem with that.
            We're not moving any papers. We'll try to make sure
        4
        5
            that we make our answers as clear as possible.
        6
            BY MR. HOAG:
        7
                      I know it probably sounds annoying for me
        8
           to go, have you answered it yet? I'm not trying to
            be annoying, I have not heard the answer. Okay. So
```

```
11 benefit from the options program?
              A It would be '88 or '89. I'm not sure.
       12
       13
               Q And exactly how does the options program
       14
            work?
       15
                     MR. FOWLER: You know, John, just, again,
            I'm not going to object to the relevancy of all of
       16
       17
            this. You can go ahead and obviously ask the
            questions, but I think it's beside the point.
       18
       19
            BY MR. HOAG:
       20
                Q Okay. How does the options program work?
       21
                    Basically management would look at the
       22 employees, and there would be a certain amount of
           funds available. And we would look at those
       23
            individuals that, based on performance and individual
       24
       25
           potential contribution in the future, we wanted to
37
           put into the program.
        1
                    That's how decisions are made regarding
        3
            eligibility for the program. Once you're accepted to
            be in the program, what benefit do you receive?
                A You get a piece of paper that basically
        5
            gives you a certain number of share options for a
        6
        7
            certain number of shares of Philip Morris stock. You
           cannot do anything with that for one year, and then
        8
        9
           from years one to ten, you have the ability of
           cashing in those options or buying the stock for the
       10
       11
            price on the original piece of paper.
                Q Okay. So for example, if the price of the
       12
       13
            stock in 1988 is $30 a share, and then in 1990 it's
       14
           $40 a share, you can sell the stock and receive $10
       15
          per share for all the options that they give you; is
       16 that correct?
       17
               A Yes, and pay taxes and fees. Yes. But the
       18
            remaining would be yours, yes.
       19
                Q The remaining options would be yours?
                    No, the remaining money, what's left of the
       20
                Α
       21
           $10 after you pay your taxes and your fees would be
       22 yours, yes.
       23
                Q So when the options are provided, you don't
       24 have to ever sell it if you don't want to, but if you
       25 choose to, you can sell; is that correct?
38
                     MR. FOWLER: I object to the form of the
        1
        2
           question.
        3
           BY MR. HOAG:
        4
               Q Is that correct?
        5
                A When the options are provided, you don't
        6
           have to sell. You can't sell within one year.
        7
             Q And even after that year, you don't have to
        8
            unless you want to.
                A They expire in ten years.
        9
       10
                   Okay. So if the price of the stock ever
       11 goes down, you never have to worry about losing any
       12
           money, correct?
       13
                     MR. FOWLER: Object to the form of the
       14
           question.
       15
            BY MR. HOAG:
               Q Is that correct?
       16
       17
               A Yes.
       18
               Q So you can only profit from this, you can't
       19 lose any money from it, correct?
       20
                     MR. FOWLER: Object to the form of the
```

beginning -- was it around 1988 that you started to

```
21
                     THE DEPONENT: It's a piece of paper until
       22
       23 you exercise it.
       24
           BY MR. HOAG:
       25
                0
                     Okay. Have you exercised any options since
39
            you've worked for Philip Morris?
        1
                     Yes.
                 Α
                Q
        3
                     How many?
        4
                A I didn't hear your question.
        5
                 Q I said, how many?
                    I would estimate around -- I did it twice.
        6
        7
           And I would estimate the approximate number of shares
        8
            each time was about 2,000.
        9
               Q And what was the difference in value of the
       10
            shares at the time you exercised the options versus
       11
           the time that you were provided with the options?
       12
                A Let me correct what I just said. I did it
       13 twice. The approximate number of shares the first
       14
           time was 2,000. The second time I exercised two
       15
            options, and I think the approximate number was
            probably more like 4,000. And now, what was your
       16
       17
           next question, please?
       18
            Q Okay. When you exercised the options to
       19
            sell 2,000, what year was that?
       20
                A It was about two or three years ago.
       21
                    And when you exercised the option to sell
       22 4,000, what year was that?
                A Earlier this year.
       23
       24
                     Okay. And how much -- when you exercised
       25
           the option to sell 2,000, how much money did you
40
           receive before taxes?
            A I really don't recall. I would estimate it
            was a little bit over $100,000, but I don't recall.
        3
                Q Okay. And when you exercised the option to
        4
        5
            sell 4,000 this year, how much money did you receive
        6
           before taxes?
        7
                 A Before taxes? Again, I would say that the
        8 approximate amount of money that I got -- and I think
        9
           taxes were taken out -- was in about the $200,000
       10
           category, so.
               Q And why did you decide to cash in on the
       11
       12
           option this year for 4,000 shares?
       13
                A We consulted a financial advisor, and we
       14
           were diversifying into a number of different areas.
       15
                Q Did you have any concern that the value of
       16
            the Philip Morris stock might go down?
       17
                A
                    No.
       18
                     What kind of things affect the value of the
       19
            Philip Morris stock?
       20
                     MR. FOWLER: I object to the relevance of
       21 this.
       22 BY MR. HOAG:
       23
                 Q You can answer.
       24
                    I think that it would probably be more
            appropriate to ask an analyst, but I think the media
       25
41
           affects it. I think the financial basis of the
        1
        2
           company affects it. Those are two key areas.
        3
                 Q What about the outcome of lawsuits?
        4
                     MR. FOWLER: Object to the form of the
           question.
```

```
BY MR. HOAG:
        7
            Q Does the outcome of lawsuits affect the
        8 value of the stock?
       9
               A Yes, they could. That also affects the
           financial aspects of the company.
       10
       11
            Q What are your duties now in your current
       12
           position?
       13
                     MR. FOWLER: Would you repeat the question?
       14
          It didn't come through.
       15 BY MR. HOAG:
       16
            Q What are your current duties in your
       17 current position at Philip Morris?
               A I'm the senior vice president of research
       18
       19
           and development, and in that capacity I'm basically
       20
           involved in overseeing the research and development
       21
           activities of Philip Morris, USA; would include the
       22 development of products, product technologies,
       23 processes and providing information to the
           corporation.
       25
                Q
                     How many people do you supervise?
42
        1
                A In the USA --
                Q
        2
                     Pardon me?
        3
                    In the USA I would say just under 600.
                Α
        4
                Q
                    And do you supervise people in other parts
        5 of the world?
        6
               A
                    Yes.
        7
                    Do you supervise people in other parts of
                0
        8 world?
        9
                Α
                    Yes.
       10
                    How many -- well, how many people?
                Q
       11
                    Under 200.
                A
       12
               Q What other parts of the world do you
       13 supervise people in, in your current position?
               A Europe and Asia.
       14
                   And what are the occupations of the people
       15
       16 that you supervise in other parts of the world?
       17
               A They're scientists.
       18
               Q
                    Any other occupations, other than
       19 scientists?
       20
               A Other than those that support the
       21 scientists, no.
                Q Other than the forms of compensation that
       22
       23
           you have described to me that you received from
       24
           Philip Morris, are there any other forms of
       25
           compensation that you received or receive?
43
        1
                A From Philip Morris?
        2
                    Yes.
                Q
        3
                A Well, other forms of compensation; there is
        4
           a long term incentive compensation program.
               Q What is that?
        5
        6
                    It's another incentive compensation program
        7
           that's based on a longer period of time, in other
        8
           words, and it's flexible, but basically there is one
        9
           now that is in force that is three years long.
                    And how does that -- what forms of
       10
       11
           compensation do you receive for that?
       12
                A A check.
       13
                    And when is the last time you received one
                Q
       14 of these checks?
       15
               A Couple of years ago.
                Q How much was the check?
       16
```

```
Again, I think it was in the vicinity of
       18 about $80,000.
       19 Q
                    Okay. And that's in addition to bonuses,
       20
            correct?
       21
               A
                    Correct.
       2.2
               Q How is it decided how much you get for that
       23
            compensation?
       24
           A My understanding is that it's based on a
       25
           certain percentage of your salary over a three year
44
           period of time, and that is then adjusted based on
        1
           your performance and contribution, but the base
           amount is a certain percentage.
        3
        4
                    Okay. Now, are there any other forms of
        5
           compensation other than those you have already
        6
           discussed?
        7
                     MR. FOWLER: At Philip Morris?
        8 BY MR. HOAG:
        9
               Q At Philip Morris.
       10
               A On occasion there have been awards,
       11
            restricted stock has been awarded.
               Q And what does that mean?
       12
       13
                    What that means is that on occasions
                Α
       14
           individuals would have restricted stock awarded to
       15 them, and then after a period of time, normally,
       16 again, it's a longer term program, say three years,
       17 that stock would be theirs.
               Q And how much restricted stock has been
       18
       19
          issued to you?
       20
               A I think the total number of shares is in
       21 the vicinity of 7,000.
       22
               Q And have you sold any of those yet?
       23
                A No. But not all of those are mine right
       24 now. Matter of fact, none of those, at this point,
       25
           are available to me.
45
        1
                     When do they become available to you?
                    One portion becomes available in June, and
        2
                Α
           then the larger amount, a larger amount of that
        3
        4
           portion comes available in about two and a half
        5
           years.
        6
                    Okay. Are there any other forms of
        7
           compensation from Philip Morris?
        8
                A That's all that I can think of right now.
        9
                    Okay. Are there any companies that you
       10 work for other than Philip Morris that you receive
       11
           compensation from?
       12
               A No.
       13
                Q Now, the 600 people that you supervise in
            the United States, are they all scientists?
       14
       15
               A They're scientists, engineers, product
       16
           developers, yes, and then there's supporting
       17
            individuals, obviously.
       18
                   The position that you're in now, who held
       19
            it before you?
       20
                    Dr. Ken Houton, H-O-U-T-O-N.
                A
                    And why did he leave the position?
       21
                    He retired.
       22
                Α
       23
                     What month did he retire? What year and
                0
       24
           what month?
       25
            A Last October, 1996.
46
        1
               Q Okay. And what was the position you held
```

```
immediately before the current position you're in?
        3
               A I was the vice president of research and
           development. That was, that appointment was made in
        4
           July of 1996, as a prelude to Ken's retirement.
        6
                Q
                    What do you mean, as a prelude to Ken's
        7
           retirement?
               A Well, it was an indication that I would
        8
        9
            succeed him, and it was a transition position.
       10
               Q Was it a position that was just formed for
       11 you that hadn't previously existed?
       12
                    MR. FOWLER: Object to the form of the
       13 question.
       14 BY MR. HOAG:
       15
                Q You can answer.
       16
                    I would not characterize it that way.
               Q Was it a position that previously existed
       17
       18 before you held it?
       19
               A A position titled vice president of R and D
       20 previously existed, yes, but this was a situation
       21 where there was an interim transition within the
       22
           organization, where the staff reported to me and I
           reported to Ken, so I was the only direct report for
       23
       24
           about three months.
       25
                Q Prior to the vice president of research and
47
        1
           development position, what was your position
        2
           immediately prior to that?
                A Vice president of product development.
        3
                   And how long did you hold that position?
        4
                A Approximately one year.
        5
        6
                Q From about July of '95 till '96?
        7
                A Little bit before that, little bit more
        8 than a year.
        9
            Q What were your duties as vice president of
       10 product development?
       11
           A I oversaw product development and
       12
            evaluation.
               Q What types of products?
       13
       14
                A Cigarettes.
       15
               Q Anything else?
       16
               A No.
       17
                    And what did you do immediately prior to
               Q
       18 that?
                    I was the director of research.
       19
       20
             Q
                     Director of research for the entire
       21 company?
                    MR. FOWLER: Sorry, John, you were cut out
       22
       23 again.
       24 BY MR. HOAG:
       25
               Q You were the director of research for the
48
        1
           entire company?
        2
                A For Philip Morris, USA, yes.
        3
                Q And what years did you hold that position?
        4
                A Approximately three years.
        5
                    That would be from 1992 until '95; is that
                Q
        6
           correct?
        7
               Α
                    In that vicinity, yes.
                    Did you supervise anyone in any other
        8
        9 countries other than the United States at that time?
       10
            A Yes.
       11
               Q What other countries?
       12
               A There was Europe; Belgium and Germany.
```

```
13
                    And who did you supervise? What positions
       14 did you supervise?
       15
               A Scientists, about 150.
       16
                   In Europe, Belgium and Germany?
       17
                    In Belgium and Germany.
       18
                Q Okay. And prior to the position you held
       19 as director of research in 1992, what position did
       20
          you have?
       21
               A I was the director of applied research.
       22 That was at the point that research was split.
            Q And you were director of applied research
       23
       24 from when to when?
       25
                    For approximately a year or two.
               A
49
                  From 1990 to '92?
        1
                Q
        2
                A In that vicinity.
        3
                Q Okay. And when you say that was the year
        4 that was split, what do you mean?
               A We were, there were two directors of
        6 research; one a director of applied research and one
        7
           a director of basic research.
                Q So around 1990 it was split into applied
        8
           and basic, and you were put into the position of
       9
       10
           director of applied; is that correct?
       11
                A That's correct.
       12
                Q Okay. What did you do prior to 1990?
       13
               A I was the manager of biochemical research.
               Q From when to when?
       14
                   Approximately 1989.
       15
                Α
               Q
                    '89 to '90?
       16
       17
                Α
                    Yeah, it was approximately a two year
       18 period of time, as I recall.
       19
            Q And prior to '89, what was your position?
       20
               A I was a section leader in the biochemical
       21 research division.
       22
               Q From when to when?
       23
                    Approximately one year before that, so,
                A
            '88.
       24
       25 Q
                    And prior to being section leader in the
50
           biochemical research division, what position did you
        2
           hold?
        3
                    I was technical coordinator for that same
        4
           division.
        5
               Q
                    What years?
        6
                A
                    Again, for approximately one year.
        7
                    That would be?
                Q
        8
                    '87.
               A
       9
                    '87. Prior to '87 what position did you
               Q
       10 hold?
       11
                  I was a project leader in that same
                Α
       12 division.
       13
               Q What years?
                    I didn't hear you.
       14
       15
                Q What years were you project leader?
       16
               A I was project leader for, gee, probably
       17
           about three years.
               Q That would be, like, from '84 to '87?
       18
                    '83 to '87. Again, it depends on the
       19
                Α
       20 beginning or the end of the year, yes.
       21
                Q And prior to that, what was your position?
       22
                    I was a research scientist, and I worked in
       23 the lab.
```

```
Q
                     That was prior to 1982?
       24
       25
                     1983, prior to 1983.
               A
51
                    Have you ever heard of the nitrosamine
            group?
        3
                     MR. FOWLER: Object to the form of the
        4
           question.
        5
            BY MR. HOAG:
        6
                     You can answer.
                Q
        7
                Α
                    We never used that term.
        8
                    Do you know what the nitrosamine group is?
        9
                    MR. FOWLER: Object to the form of the
       10 question.
       11
                     THE DEPONENT: We did not call any group in
       12
           R and D formally the nitrosamine group.
       13
           BY MR. HOAG:
               Q
       14
                    You didn't call it formally the nitrosamine
       15
           group?
       16
               A Right.
       17
                    Did you call it informally the nitrosamine
               0
       18 group?
       19
            A No, we called it chemical studies of
       20 condensate or smoke condensate studies.
       21 Q And the chemical studies or smoke
       22 condensate studies, did those include looking at
       23 nitrosamines?
       24
               A Yes.
                Q And when did that begin?
       25
52
        1
                     MR. FOWLER: Object to the form of the
        2
           question; vague.
        3
                     THE DEPONENT: That began probably in the
            70s. But again, it was not a distinct group
            necessarily. It was a number of people within the
        5
            smoke chemistry group.
        6
        7
            BY MR. HOAG:
        8
             Q When you worked in the lab prior to '83,
        9
            when did you begin?
            A 1980.
       10
       11
                    Was that the first position you held with
       12 Philip Morris, in 1980?
       13
                A Yes.
                    How did you come to work for Philip Morris?
       14
                    I was at the time an instructor at the
       15
       16
          Medical College of Virginia. And at that time an
           individual, Dr. Jim Charles, was getting his PhD down
       17
           at the Medical College of Virginia, and I handed him
       18
       19
           my CV. And there was a position open at the time for
           an individual to look at the chemistry of smoke, and
       20
       21
           they hired me.
                Q Okay. So your first position was to look
       22
       23
            at the chemistry of --
       24
               A That's correct.
       25
                Q
                    -- smoke?
53
                A That's correct.
        1
                Q And how many other scientists or chemists
        2
        3
            at Philip Morris were looking at the chemistry of
            smoke at the time you were hired?
        4
        5
                     It would be very difficult to ascertain an
            exact number. There were a lot of people looking at
        6
        7 routine chemistry measurements. The group I was
            involved in was doing more research in terms of
```

```
looking at chemistry of smoke, how it's impacted by
       10
           various things and looking at ways of modifying the
       11 chemistry.
       12
            Q Was part of the process to look at the
       13
            flavorants or additives in the cigarettes?
       14
                     MR. FOWLER: Could you restate the
           question, John?
       15
       16
            BY MR. HOAG:
       17
                Q Was part of the job to look at the
       18
            flavorants or additives in the cigarettes?
       19
                 A Part of what job?
       20
                    Part of the job that you had when you first
       21 started to work for Philip Morris.
       22
                    No.
                A
       23
                Q
                     No?
       24
                A
                     No.
       25
                 Q Was that ever part of your job, to look at
54
           the chemical components of the flavorants or the
            additives in cigarettes?
                     MR. FOWLER: I'm going to object to the
        3
            form of the question. When you say, you, do you mean
            Dr. Ellis, specifically?
        5
        6
            BY MR. HOAG:
        7
                Q
                     I mean her specifically or anyone she
        8
            supervised.
        9
                A At that time? Any time?
       10
                     Yes.
                    I personally never was involved in working
       11
       12
            in the lab analyzing flavors; other people at Philip
       13
          Morris have been.
               Q When did -- to your knowledge, when did
       14
       15 Philip Morris first start measuring the level of
            nitrosamines in sidestream smoke?
       16
       17
                     MR. FOWLER: I object to the form of the
       18
           question. You can go ahead and answer.
                     THE DEPONENT: Again, I'm not as familiar
       19
           with the specific dates. Obviously, we have had some
       20
       21 research in sidestream smoke in our laboratory in
       22 Switzerland, but I would say certainly nitrosamines
       23 were looked at in mainstream smoke back in the '70s,
       24 and whether or not sidestream was looked at at that
           time specifically, I'm not sure.
       25
55
        1
           BY MR. HOAG:
        2.
                Q What is the earliest time you're aware of
           that the nitrosamine level in sidestream smoke was
        3
            looked at at Philip Morris?
                     Certainly in the '80s, I'm aware of that.
        5
        6
                    Would it have been in the earlier '80s?
                 Q
        7
                     Yes.
                Α
                Q Prior to 1982?
        8
        9
                 A I wouldn't be aware of that.
       10
                 Q Prior to 1983?
       11
                    I wouldn't be aware of that. My
       12 recollection is 1984, '85, was the time frame, that I
       13 can recall.
       14
                0
                     And why are you able to recall that as a
       15
           time frame?
       16
                A Because of a report that I have read.
       17
                     What report did you read?
       18
                    Some of the reports that related to the
       19 work that was done in Neuchatel, N-E-U-C-H-A-T-E-L,
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```
Switzerland.
       21
            Q When did you read that report?
       22
                A
                    Well, I read it back in the 80s and was
       23 familiar with the work back in the 80s.
               Q And what was the content of the report?
       24
       25
                A There were numerous reports and a lot of
56
        1
           work being done in Richmond on nitrosamines.
        2
                Q What was the work being done in Richmond on
        3
            nitrosamines?
                A The work basically in the smoke chemistry
        4
           group involved looking at basic methods,
        5
            understanding how nitrosamines were formed,
        6
        7
            understanding then, potentially, how we could reduce
        8
        9
                     And what was done in order to understand
       10 how nitrosamines were formed?
       11
            A We looked at the different tobaccos. We
       12 looked at the precursors, tried to identify the
       13 precursors. We looked at various ways of trying to
       14
           effect and understand the formation and different
            ways of formation of nitrosamines in smoke.
       15
                     Were there any chamber studies done?
       16
       17
                     MR. FOWLER: Object to the form of the
       18
           question.
       19
                     THE DEPONENT: There were. Obviously we
       20 did chamber studies.
       21 BY MR. HOAG:
                    Were any chamber studies done to measure
       2.2
       23
           the nitrosamine level in sidestream smoke?
       24
                A Ever?
       25
                     Well, right now we're talking about the
                 Q
57
            '80s.
        1
                    Yes, chamber studies were done.
        2.
                A
                   During those chamber studies, was the
        3
            sidestream smoke ever aged at all?
                A In some situations, yes.
        5
        6
                     What were the situations where it would be
        7
            aged?
        8
                    It depended on the experimental protocol.
        9
                    When you say, the experimental protocol,
       10 what do you mean?
               A What I mean is that -- and where I think
       11
       12
          we're getting confused here, there are different
       13
           analytical methodologies for looking at smoke. There
       14 is a certain collection method for mainstream smoke,
       15 and then you analyze mainstream smoke. There's a
       16 certain collection methodology for sidestream
       17
            smoke -- we can call that fresh sidestream smoke --
       18
            and there's obviously methodologies for collecting
       19
            fresh sidestream smoke. And then there was a way of
       20
           looking at aged sidestream smoke, and that's another
       21
           methodology.
       22
                    What's the methodology for looking at aged
       23 sidestream smoke?
             A Basically it's introducing the smoke from a
       24
       25
            large number of cigarettes into a room and collecting
58
           from that room materials, after a certain period of
        1
        2
          time. And that time frame of aging can vary,
           depending on the experimental protocol.
                   Now, when you say, room, is that separate
```

```
5
    from a chamber?
     A It isn't separate from a chamber. You can
 6
7
    call it a chamber, you can call it a room.
8
        Q Is it a stainless steel chamber or room; is
9
    that correct?
10
        A Generally we call it the sidestream chamber
11
    or we call it the material room. So the terms, in
12
    that sense, are used interchangeably.
13
         Q And when the sidestream smoke was aged,
14 what type of cigarettes were used for these
    measurements?
15
16
             A variety of different cigarettes.
17
             When you say, a variety of different
18 cigarettes, right now I'm talking about 1980. Are
19
    you talking about reference cigarettes?
20
         A Reference or experimental cigarettes that
21 are made in order to control conditions were
22 certainly used, and commercial cigarettes were also
23
24
         Q
             Okay. Were commercial cigarettes used to
25
    measure the level of sidestream, of aged sidestream
    smoke back in the 1980s?
1
 2.
             MR. FOWLER: Object to the form of the
 3 question.
 4
              THE DEPONENT: Yes.
 5
    BY MR. HOAG:
 6
             And when commercial cigarettes were used
 7
    back in the '80s on sidestream smoke, aged sidestream
8
    smoke measurements, did they also include nitrosamine
9
   measurements?
10
     A In some situations, yes.
11
        Q What situations? Under what situations
12 were commercial cigarettes used to measure
    nitrosamine levels from aged sidestream smoke?
13
14
         A There were a number of commercial
15
    cigarettes used in the sidestream chamber in
    Neuchatel, Switzerland, and there were a number of
16
17 commercial cigarettes used in the chamber in
18 Richmond. Mainly those studies, though, were focused
19 on sidestream visibility and looking at low
20 sidestream papers and thereby measuring sidestream
21
    visibility reduction.
22
        Q The ones that were done in Richmond -- when
23
   I'm saying ones, I mean the ones where they looked at
24
    commercial cigarettes -- did they measure the
25
    nitrosamine level in the aged sidestream smoke?
1
         A In Richmond?
        Q Right.
 2
 3
             For commercial cigarettes?
         Α
         Q
 4
             Yes.
 5
             I have no recollection of that ever being
         Α
 6
    done.
 7
             Okay. And in Switzerland during the 1980s,
8
    were commercial cigarettes ever used to measure the
    nitrosamine level in aged sidestream smoke?
9
10
             And what time in the '80s was that done?
11
12
        A
             I think we have data around 1987 and
13 forward and maybe even before that.
14 Q How many scientists were working on this in
15 Switzerland in the 1980s, on measuring the
```

```
17
                     MR. FOWLER: Was the question, how many
       18 scientists?
       19
          BY MR. HOAG:
                Q Yes, in Switzerland were working on
       20
       21 measuring the nitrosamine level in aged sidestream
       22
            smoke in the 1980s?
       23
                     Well, I think it varied over time, and I
       24
           was not there, and I really could not represent
       25
            accurately the number of people.
61
                     Well, in 1980 was it less or more
            scientists in the United States who were working on
        2.
        3
            measurements of nitrosamine levels in aged sidestream
            smoke as compared to the number in Switzerland?
        5
                     In the 1980s there were definitely more
           people in Switzerland looking at analyzing sidestream
        6
        7
            smoke and nitrosamines.
        8
                    And how do you know that?
        9
                     Because there was only one person in the
       10 United States that ever looked at nitrosamines in
            aged sidestream smoke, in Richmond.
       11
                     Who was that?
       12
                 Q
       13
                     Ray Morgan.
                 Α
       14
                 Q
                     Why was Ray Morgan the only one in Richmond
       15 that did that?
                     I couldn't answer that. I don't know.
       16
       17
                     Was that part of his general
       18 responsibilities, to look at nitrosamine levels in
       19
           aged sidestream smoke?
       20
                     I don't ever recall that being a specific
                 Α
       21 objective.
       22
                    How do you know he did that?
                 Q
                     I know that he did a study and have a memo
       23
           after the study where he tested experimental
       24
       25
            cigarettes in the chamber.
62
                     And what date is that memo?
        1
                     It's in December of 1989.
        2
                 A
        3
                 Q What does the memo say?
        4
                     Basically there were a number of different
        5
           experimental cigarettes. They had the same cigarette
            tobacco filler and the paper varied, therefore, it
        6
        7
            was a controlled condition.
        8
                     Does the memo say anything else other than
        9
           that?
       10
                     Well, basically he looks at the data
       11
            associated with the nitrosamines in particular, in
       12
           the room.
       13
                 Q
                     And what were the findings?
                 A The findings were that there were some
       14
       15
            increases in NNK relative to normal paper for some of
       16
            the sidestream papers, but again, some of the
       17
            increases were not that great. And the variety of
       18
            NNK analysis is tremendous, and whether or not those
       19
            were significant is highly questionable.
                     And this was written in December of '89?
       20
                 Q
       21
                     Correct.
                 Α
       22
                     Who is it written to?
                 Ο
       23
                 Α
                     Me.
                      And what was your response, if anything, to
       24
       25 that memo?
63
```

nitrosamine level in aged sidestream smoke?

```
My response, if anything, to that memo?
         Α
 2
              Yes.
         Q
 3
             In terms of what?
         A
 4
             In terms of any response that you had to
   the memo that he wrote to you.
5
6
     A It was increased knowledge of certain
7
    aspects of sidestream smoke chemistry, and basically
8
    that was increasing our knowledge in that area.
         Q Okay. So then you didn't have any problems
9
    with him doing that research; is that correct?
10
11
         A Not at all.
12
             Did you communicate that to him in writing
13 or orally?
14
              MR. FOWLER: I'm sorry, communicate what?
15
    BY MR. HOAG:
16
         Q Your response to his memo, ma'am.
17
             I didn't have a response to his memo
         Α
18 specifically. It was, he was writing a memo that
19 added to the knowledge base, and I accepted the
20
    information. There was no specific response.
21
         Q And who did this with him? Other than,
22
    other than Dr. Morgan, did anyone else participate on
23
    this project?
24
         A From the nitrosamine analysis standpoint, I
25
    believe I had some technicians working with him, and
    I think on the room standpoint, in other words, the
1
    actual running of the experiment in the room, there
 3
    were individuals that did that portion of the
 4
    experiment.
 5
             And he found that the aged sidestream smoke
 6 had a higher amount of nitrosamines in it than the
7
    sidestream smoke that was not aged?
        A I would say that's a complete
9
    mischaracterization of what I said.
10
            What did he find?
11
             He looked at controlled cigarettes that had
         Α
    different -- in other words, experimental cigarettes
12
13 that had different papers on it. And he looked at
14 nitrosamine levels at different periods of time or
15 actually at one time, one aged point.
         Q And what were his findings?
16
         Α
             In some cases for certain parameters in
17
18
    certain cigarettes he could find some increases in
19
    certain end points, but based on the known
20
    variability in the analysis and potential for what we
    call artifact formation in the collection of
21
22 nitrosamines, in particular in the collection of NNK,
23 it is highly questionable as to whether or not any of
24
    these results were significant.
25
         Q What results did he get?
1
         A In terms of?
 2
             That was communicated to you in the memo.
 3
             He got results on certain nitrosamines,
         Α
 4
    nicotine, NNK.
 5
              Numerically, what were those results?
 6
              I'm sorry, I didn't hear all of your
 7
    question.
8
        Q Numerically, what were the results?
9
        A I don't have that in front of me, and I
10 certainly have not memorized them.
11
        Q When was the last time you reviewed this
```

```
13 A Probably within the last week.
       14
                     But you didn't bring that with you today,
                Q
       15 correct?
               A No, I certainly didn't.
       16
       17
                    Where is that memorandum now?
       18
                A
                    I mean, it's in the central file at Philip
            Morris. I have a copy of it.
       19
               Q Where do you have a copy of it?
       20
       21
                     It's probably in my -- at this point, it's
                 Α
       in a bag in my car.
       23
                     You mean, in your car that's parked in the
       24
            parking lot where your are right now?
       25
                     That's correct.
                Α
66
        1
                      Okay. Can you go get that memo?
                      MR. FOWLER: We are not going to have the
        2.
        3
            witness running and grabbing memos from her car.
            We're on the 20th floor, and we're not going to have
        5
            her do that.
            BY MR. HOAG:
        6
        7
                      Ma'am, can you go get that memo?
        8
                 Α
                     Physically?
        9
                     Yes.
                 Q
       10
                 Α
                     Physically, I could.
       11
                     MR. HOAG: Well, I would like to take a
       12 break and have you find the memorandum.
                     MR. FOWLER: We are not going to have her
       13
       14
            go chasing down memos every time you come up with
       15
            something you didn't anticipate. If you wanted to
       16
            take this deposition in person, you could have
       17
            brought the memos or anything else you wanted to
            examine her on. We're not going to have her chasing
       18
       19
            all over Richmond, getting things for you.
       20
                      MR. HOAG: So you're refusing to allow her
       21
            to go get the memo?
                      MR. FOWLER: I'm telling you that it's
       22
            inappropriate for you to be requesting her to run
       23
       24
            down there to get materials that you didn't
       25
            anticipate.
67
        1
                      MR. HOAG: I've never been provided with a
        2
            copy of this memo.
        3
                      MR. FOWLER: You've been provided with
        4
            ample discovery in this case.
        5
                      MR. HOAG: I've never been provided a copy
        6
            of this memo. I'm not going to get in an argument
        7
            with you, but I will certify for the record that I'm
            asking her to do this and you're instructing her not
        8
        9
            to do it.
       10
                      MR. FOWLER: Let's take a break.
                      MR. HOAG: I'm still on the record. Is the
       11
       12
            court reporter there?
       13
                      THE COURT REPORTER: Yes, sir.
       14
                      MR. HOAG: I'm still on the record, and I'm
       15
           objecting to the instruction to the witness not to
            provide me with documents that she has in her
       16
       17
            possession that she has testified about.
       18
                      MR. FOWLER: They're not in her possession.
       19
                      MR. HOAG: And she says she can't remember
       20
            everything in it without looking at it, and now she's
       21 been instructed not to go get it, when it's down in
       22 the car and it would take her five minutes to do it.
```

memorandum?

```
I'm objecting to that, and I will certify the
        24
            question. I won't be able to obviously complete this
            deposition until I have access to that memo, so \ensuremath{\mbox{I'm}}
        25
68
            making a record now. If you want to take a break
            now, that's fine. How long do you want?
                      MR. FOWLER: How about ten minutes? Is ten
        3
        4
            minutes long enough for you, Doctor?
                      THE DEPONENT: That's fine.
        5
                      MR. FOWLER: How long do you anticipate
        6
        7
            this deposition will last?
        8
                      MR. HOAG: I would say it will be over by
        9
            one o'clock.
       10
                      MR. FOWLER: One o'clock our time, eastern
       11
            time?
                      MR. HOAG: Yeah, I'm talking about one
       12
       13
            o'clock your time.
       14
                      MR. FOWLER: Just wanted to make sure.
       15
                      MR. HOAG: You're 10:30 there now, right?
       16
                      MR. FOWLER: Correct.
       17
                      MR. HOAG: Hello?
                      MR. FOWLER: Yes. Correct.
       18
       19
                      MR. HOAG: So you want a ten-minute break?
       20
                      MR. FOWLER: Yeah, exactly. Why don't we
       21 take ten minutes?
       22
                     MR. HOAG: I'll just stay on the line; keep
       23 the line open.
       24
                      (Recess taken)
        25
                      MR. FOWLER: We told you we were going to
69
            take 10 minutes. We actually took almost 20, because
        1
            15 minutes was spent walking down to Dr. Ellis' car
        2
            and picking up the document that you requested we
            get. That will be the last time we do that. But on
            reflection, we agreed simply to go down and do that
        5
            this one time. We're actually parked, Dr. Ellis is
            parked in a different building, so we had to walk
        7
            down and walk over to the other building and go down
        8
            to that parking lot, but back we are and ready to
        9
       10
            continue.
       11
                      MR. HOAG: Okay. Could we have that
       12 document marked as Plaintiff's Exhibit 1?
                     MR. FOWLER: Sure, we will do that. Yes.
       13
       14
                      (Plaintiff's Exhibit
       15
                      Number 1 was marked)
       16
           BY MR. HOAG:
       17
                 Q Okay. I'm just going to assume that's
       18 already marked. And would you look at Plaintiff's
       19
            Exhibit 1, Doctor?
       20
                 A Yes.
       21
                 Q
                     You recognize it?
       22
                 A
                     Yes.
       23
                 Q What is it?
       24
                 A It's a memo dated December 5th, 1989, from
        25
            W.R. Morgan to Dr. C.K. Ellis, entitled, Sidestream
70
            Chamber Nitrosamine Results, Low Sidestream
        1
         2
            Subjective-Analytical Study.
        3
                 Q And what does it say?
        4
                      MR. FOWLER: Do you want her to read the
        5
            document?
            BY MR. HOAG:
                 Q
                    How long is the document?
```

```
It's two pages and then has attached two
9
   pages of attached chromatograms and -- excuse me,
10 three pages of attached chromatograms; three pages of
11
    attached chromatograms and four pages of attached
12 tables.
13
         Q Yes, I would like you to read the two-page
    document, not the tables, but the document itself.
14
15
    A Sidestream chamber nitrosamine data have
    been obtained on three cigarette types prepared for
16
17
    the "low sidestream subjective-analytical study" --
18 with a reference. The three cigarettes studied were
19 X8D9XN (Marlboro paper), X8D9XO (Mg(OH) 2 paper) and
20 X8D9XQ (double CaCo 3, paper 2) all containing 2I
21
   filler blend (J9RX).
22
             Chamber smoke samples were collected on
23
    Extralut, registered trademark, three tubes wetted
    with four mL of pH 4.5 citrate/phosphate buffer
24
25
    containing ascorbic acid. Five tubes were collected
1
    for each of three chamber runs for each code. The
    five tubes from each run were each eluted with 50 mL
    of 80/20 methylene chloride-acetone mixture, the
    eluant combined into one sample and concentrated to 2
 5
    \mathtt{mL} final volume. GC/TEA analysis for VNA and TSNA
    was obtained on the final work-up solution.
 6
7
             Figure one shows a representative
    chromatogram for the VNA/TSNA calibration standard
8
    (IA) and each of the three cigarette types X8D9XM
9
    (1B), X8X9XO (1C), and X8D9XQ (1D).
10
11
        Q Let me stop you right there. Those codes
12
   for cigarettes, are those actual commercial
13
    cigarettes or are they reference cigarettes?
14
         A Those are reference cigarettes.
15
         Q Okay. Now, were any actual commercial
    cigarettes tested based on this memo?
16
17
        A No.
             And were any of these cigarettes tested for
18
         Q
    the level of NNK nitrosamines?
19
        A Yes, in sidestream, in the chamber.
20
21
             Okay. So this measured the NNK
22 nitrosamines?
23
         A And other things.
             Okay. What were the results related to the
24
25 NNK nitrosamines?
1
             Table one gives the nitrosamine results for
2 the samples collected -- I'm swinging down to the
 3
    results section of the memo.
 4
         0
              Okay.
 5
              For the samples collected in the sidestream
         Α
 6
              MR. FOWLER: And let the record reflect
 7
8
    that Dr. Ellis is actually reading from the document
9
    now.
10
    BY MR. HOAG:
11
        Q Right.
             As can be seen in table one there is an
12
    increase of approximately 50 percent in DMN and NPYR
13
    and a 65 percent increase in NNK for X8D9XQ relative
14
15
    to X8D9XM. The changes in NNN and NAT are not
16
    considered significant based on the standard
17 deviations measured for these compounds. X8D9X0
    shows smaller but significant increases in DMN and
```

```
19
            NNK than X8D9XQ. The changes in NPYR, NNN and NAT
       20
            for X8D9XO are not significant.
                     It is --
       21
       22
                     Excuse me, the 65 percent increase in NNK
       23 that you were reading, that was in comparison to
       24
            another reference number?
       25
                    Right, relative to another controlled
73
           cigarette.
        1
        2.
                     Okay. Was there any comparison of the
            sidestream smoke, aged and not aged -- as far as the
        3
            NNK levels are concerned -- in this memo?
                     Based on what I understand from this, no.
        5
        6
                     Okay. So this memo was not concerning any
           measurements of commercial cigarettes and it also was
        7
        8
           not concerning any measurements of aged sidestream
        9
           smoke; is that correct?
       10
                     MR. FOWLER: Object to the form of the
       11 question.
       12 BY MR. HOAG:
       13
                Q Is that correct?
                A It did concern aged sidestream smoke. You
       14
       15
            asked if it concerned fresh sidestream, initially.
       16
             Q Okay. In what way did it concern aged
       17
            sidestream smoke?
       18
                A Normally in the standard runs of the
       19 chamber those cigarettes were, the samples were taken
            one hour after smoking, and that was generally the
       20
            standard protocol. However, I'm trying to see where
       2.1
       22
            that is stated in the memo, and I don't see it. It
       23
           does not indicate -- I would have to just take a
       24
            second to make sure that I cover all the paragraphs.
       25
                      It does not indicate the time frame, to the
74
            best of my knowledge, in this memo. It would not
        1
            have been run in the chamber if it was intended to do
            a fresh sample. However, it would have been checked
        3
            by another method, as I indicated previously.
        4
        5
                 Q Do you know why commercial cigarettes were
        6
            not tested?
        7
                     The best answer to that is that there would
           be an uncontrolled situation, and it would be very
        8
            difficult to make any scientific conclusions.
        9
       10
                     Was there a standing policy not to test
       11
           commercial cigarettes for their NNK nitrosamine
       12
           level?
       13
                      MR. FOWLER: I object to the form of the
       14 question.
       15 BY MR. HOAG:
       16
                Q You can answer.
                A We have tested commercial cigarettes.
       17
       18
            Commercial cigarettes, data on commercial cigarettes
       19
            was available in the literature also. The focus of
       20
           this group and the research involved was to look at
       21
            basic understanding. In order to have basic
       22
            understanding, you need controlled situations where
            you change one variable at a time. Commercial
       23
            cigarettes would not allow us to have controlled
       24
            conditions, and we would not know the basic variables
       25
75
        1 involved and therefore could not make conclusions.
                Q Okay. So there was a standard policy not
        3 to test commercial cigarettes?
```

```
No. I disagree with the characterization.
              MR. FOWLER: I object to the form of the
 5
 6
    question.
7
    BY MR. HOAG:
        Q Were commercial cigarettes in Richmond,
9 Virginia, to your knowledge, ever tested to find out
    their level of the NNK nitrosamine in sidestream
10
11
12
             In sidestream smoke, not to my knowledge in
13
    Richmond. We had previous knowledge from Neuchatel.
        Q Now, you said in Neuchatel, Switzerland,
14
15 there were tests done of commercial cigarettes
    related to the sidestream smoke; is that correct?
16
17
             Yes.
         Α
         Q And was it aged sidestream smoke?
18
         A Some of the work was aged, yes.
19
20
        Q When you say, some of the work was aged,
21
    what percentage of the work was aged?
22 A I'd say relative to the total amount of
23
    work done in Neuchatel at that time, a large amount
24
    of their focus was on aged sidestream smoke, whereas
    a large amount of Richmond's focus at the time was on
25
    mainstream smoke.
1
 2
        Q Was it the primary responsibility of the
 3 scientists in Switzerland to measure the aged
 4
    sidestream smoke --
             MR. FOWLER: Object to the form of the
 5
 6
    question.
 7
    BY MR. HOAG:
8
     Q -- as compared to the primary
9
    responsibility of the people in Richmond?
10
             MR. FOWLER: Same objection.
11
              THE DEPONENT: To the degree --
12 BY MR. HOAG:
13
        Q Ma'am?
             -- that they had a room before we did and
14
         Α
15
    they had longer term experience; they had been doing
16
    it for a longer period of time.
17
         Q And what commercial cigarettes were tested?
18
         A There were a variety of cigarettes from the
19
    European market. There were also data reports and
    actually pages that indicated that cigarettes like
20
21
    Capri and Virginia Slims were tested in Neuchatel.
22
     Q Where Capri and Virginia Slims actually
23 tested in Switzerland?
24
        A That's my understanding, based on the
25
    reports or actually the actual data sheets that I
    have seen.
1
 2
     Q You said, like Capri and like Virginia
    Slims. Were Virginia Slims and Capri actually
 3
 4
    tested?
 5
             They were listed as, I think, Capri Lights
 6
    and Virginia Slims, as I recall.
 7
        Q They were listed as Capri-like, is that
8
    what you said?
             There was another, there were two Capri
9
10 cigarettes and there was a Virginia Slims in the
11 specific page that I have, that I can recall.
12
    Q And what documents are you referring to
13 now?
14
        A It's a data sheet.
```

```
15
             It's a data sheet from when?
16
         A From the documents in Neuchatel.
17
        Q
             What documents are you talking about at
18 Neuchatel?
             Their previous history in these studies.
19
        A
20
             When did you look at those documents?
             Within the last couple of months.
21
         Α
             Did you look at those documents before or
22
        Q
23 after Dr. Morgan's deposition was taken?
24
             MR. FOWLER: Object to the form of the
25 question. Which deposition are you referring to?
    BY MR. HOAG:
1
 2
        Q Did you look at those documents before or
 3
    after any of the depositions of Dr. Morgan were
 4
    taken?
5
              I have looked at some of the documents, if
 6 you're talking about the total representation of the
7
    documents representing the sidestream chamber work in
    Neuchatel. I looked at some of those back in the
8
9
    '80s, and I have looked at some of those within the
10
    last few months.
              And did you look at those in preparation
11
        Q
12
    for your testimony today?
13
        A Not specifically.
14
             When you say, not specifically, what do you
15 mean?
16
             What I mean is that obviously I have been
17
   involved in, over the last two months, since
18
    Dr. Morgan's allegations, in understanding the
19
    documents and the situation at hand.
20
         Q Okay. So since what you referred to as
21 Dr. Morgan's allegations, you have been doing
    additional research at Switzerland?
22
         A Yes.
2.3
24
             And what additional research have you been
         Q
25
    doing?
              We tested in the chamber in Switzerland two
1
    controlled cigarettes similar to the ones used
    previously in Neuchatel, Marlboro -- Marlboro 100s
    and Virginia Slims, which is also a 100 cigarette.
             How long ago did you do this?
 5
             Within the last couple of months.
 6
             And prior to then had you ever done any
 7
8
    tests like that?
9
              MR. FOWLER: Object to the form of the
10
    question.
11
              THE DEPONENT: What do you mean, tests like
12
   that?
13
    BY MR. HOAG:
14
         Q Had you ever done a test on commercial
15
    cigarettes similar to the test you did a couple of
16
    months ago or recently after you became aware of what
17
    you referred to as Dr. Morgan's allegations?
18
              MR. FOWLER: I'm going to object to the
    form of the question; similar to is too vague.
19
20
              THE DEPONENT: Like I said before, there
    was data available on Virginia Slims and Capri from
21
22
    Neuchatel in the '80s.
23 BY MR. HOAG:
24
        Q What was the data available on Virginia
25
    Slims in the '80s?
```

82

10

```
A
             Excuse me?
 1
 2.
         Q
             What was the data that was available, for
 3
     example, on Virginia Slims in the '80s?
             Right, it's aged sidestream smoke data.
         Α
 5
             What did the data reveal?
         Q
              MR. FOWLER: What did the data reveal?
 6
 7
              MR. HOAG: Yes.
8
              MR. FOWLER: Okay.
9
    BY MR. HOAG:
        Q Go ahead. You can answer.
10
11
              Well, there were numbers on a page and
         Α
    basically NNK numbers --
12
13
         Q Uh-huh.
14
            -- that were based on my understanding of
15
    the common values found at the time, within the range
    of the common values found for controlled cigarettes.
16
17
        Q What were those common values that you have
18
    an understanding of?
19
         A The analysis of nitrosamines would be -- I
20
    would have to go back and look at the conditions
    specified. The analysis would be dependent on how
21
    many cigarettes, the way it's expressed, the amount
22
23
    of time it was aged, and so there are a number of
    different ranges that I could sit here and spout off,
24
25
    but the bottom line here is that the evidence
    indicated at the time that certainly there was no
1
    indication of a 10-fold or 40-fold increase.
 2.
 3
         Q Did the evidence indicate that aged
 4
    sidestream smoke had a higher NNK level than
    sidestream smoke that was not aged?
 5
 6
         A I don't believe that was looked at in that
 7
    particular study. I would have to go back and look
8
    at the sheet.
9
              So you don't believe the study actually
10
     looked at any differences between aged sidestream
     smoke and sidestream smoke that was not aged; is that
11
12
    correct?
13
              MR. FOWLER: Object to the form of the
14 question.
15
              THE DEPONENT: Which study?
    BY MR. HOAG:
16
17
         Q The ones that you're talking about, that
18
    you have since reviewed, that occurred in Switzerland
19
     in the '80s.
20
              I'm sorry, I was thinking about one sheet
21 that had Virginia Slims on it. There are other
22 reports available from studies in the sidestream
23
    chamber in the '80s that do look at aged sidestream
24
     smoke versus fresh sidestream smoke, yes.
25
         Q And what do they reveal about the readings
 1
    of the NNK nitrosamine or levels of the NNK
    nitrosamine in the fresh versus aged sidestream
 3
    smoke?
              That it will increase over time to a point
 4
 5
    of about five and a half hours.
              And what's the increase? It starts at one
 6
         Ο
 7
    and ends at what level?
 8
        A It would depend, on, again, the way you're
 9
    expressing it, the number of cigarettes, the
```

cigarette that you're starting with. There's a wide

```
range of conditions, and therefore, that's why a
       11
       12
           control would always have to be used in relating
       13 data.
       14
                     Okay. So in the 1980s, Philip Morris knew
          that commercial cigarettes' sidestream smoke, when
       15
       16
            aged, would show an increase in NNK levels over time;
       17
            is that correct?
       18
                     MR. FOWLER: Object to the form of the
       19
           question.
       20
                     THE DEPONENT: No.
       21 BY MR. HOAG:
             Q So Philip Morris did no know that in the
       22
            '80s, from research done in Switzerland; is that
       2.3
       24
            correct?
       25
                     MR. FOWLER: Object to the form of the
83
            question.
        1
        2
                     THE DEPONENT: Not in commercial
        3
           cigarettes.
        4
           BY MR. HOAG:
        5
             Q I thought you just said that these things
        6
            that you reviewed were in commercial cigarettes?
        7
               A No, that's not what I said. I said the one
        8
           sheet of paper, I said, was referring to Virginia
          Slims. If you look at the total amount of work that
        9
       10
           was done in the chamber in Neuchatel with model
       11 cigarettes, you did see the increase in NNK. I am
       12
           not sure that that was actually the protocol when
           Virginia Slims was tested. It may have been one
       13
       14
           single data point.
       15
                 Q Well, what was the protocol when the
       16 Virginia Slims cigarette was tested in the '80s in
       17 Switzerland?
               A I'm not sure at this point. I don't have
       18
            that in front of me. I don't know.
       19
       20
                   Where is that document?
                 Q
       21
                     I don't know.
                 Α
                 Q
       22
                     Do you have it in your files anywhere?
       23
                 Α
                     Yes.
       24
                    What other documents related to the
       25
           Virginia Slims cigarette or any other actual
84
            commercial cigarette do you have in your files?
        1
                    MR. FOWLER: Object to the form of the
        2
            question. It's very broad.
        3
        4
                     THE DEPONENT: Whoa.
        5
           BY MR. HOAG:
        6
            Q I'm specifically referring to the NNK level
        7
            in sidestream smoke.
        8
             A There are a number of documents relating to
        9
            Virginia Slims specifically.
                 Q Or any other commercial cigarette?
       10
       11
                    We have literature reports, and I'm not
       12
            sure those are related to aged sidestream smoke. We
       13 have this one data sheet from Neuchatel that did
       14
            indicate Virginia Slims was tested in the '80s, and
            that's all that I can recall specifically on Virginia
       15
            Slims. We now have, obviously, the study we've done
       16
       17
            in the last couple of months.
       18
                Q Now, was the study that you did in the last
       19 couple of months the same study that was done in the
       20 '80s in Switzerland or is it different?
       21
               A The design of the study was, it was
```

```
possible to the setup and the protocol in the '80s.
           However, we did test, in this study, a Marlboro as a
       24
       25
            controlled, commercial cigarette.
85
        1
                     When you say, in this study, which one do
            you mean?
                     The recent one, in the last few months.
                Α
        4
                     Did you supervise that test?
                    No. I asked -- I requested it, but I, in
        5
                Α
        6
           no way, supervised it.
        7
                Q You requested that the test be done?
        8
                A
                     Correct.
        9
                    And you requested people that you supervise
       10
           to do the test?
       11
                A No, those individuals I do not supervise.
       12
                     The people that you asked to do the test,
       13
            who are they?
       14
                     They work -- they're the Philip Morris
       15 Europe laboratory, and they are part of Philip Morris
       16
            International.
       17
                Q What are their names?
       18
                     I'm sorry, I didn't hear the whole
                A
       19 question.
       20
            Q What are their names?
       21
                A The head of the facility is Dr. Allen
       22 Kassman. The director of research is Dr. Suber and
           the individual that has done many of the studies is
       23
            Dr. Piade, P-I-A-D-E.
       24
                Q Okay. Those are all Philip Morris
       25
86
            employees, correct?
        1
                A Correct.
                    And when you requested that, did you
        3
           request that in writing?
        4
        5
                Α
                   No.
                Q
        6
                     How did you do the request?
        7
                A Over the phone and via other people.
                Q What other people did you do it through?
        8
        9
                A Through Robin Kinser and Dr. Ferguson.
       10
                Q And how did you do it through Robin Kinser
       11 and Dr. Ferguson?
                A Basically I told them what question we
       12
       13
           wanted to ask or what we wanted to find out, and they
       14
           interacted, got the cigarettes over there and
       15
          interacted with the individuals to ensure that the
       16 study was done.
       17
                 Q And what question did you want to ask?
       18
                A I wanted to address Dr. Morgan's
       19
            allegation.
       20
                Q What was your specific question?
       21
                    Did Virginia Slims cigarettes have higher
       22 than normal values of NNK in this particular model
       23
       24
                    And what particular model setup is that?
       25
                     The room, sidestream chamber. Are you
87
        1
            there?
                     Yes. And when you say, higher than normal
        2
             Q
        3
           values, what do you mean?
                A The allegation was that Virginia Slims had
        5 higher values than any cigarette that had been tested
           before, and that is what I mean.
```

specifically designed and set-up to be as close as

Reference cigarette, correct? Reference 8 cigarette, not commercial cigarette, correct? 9 MR. FOWLER: I object to the form of the 10 THE DEPONENT: I don't understand your 11 12 question. 13 BY MR. HOAG: 14 Q When you say, the allegation, Dr. Morgan 15 was not allowed to test anything other than reference 16 cigarettes; isn't that correct? 17 MR. FOWLER: Object to the form of the 18 question. 19 THE DEPONENT: I don't agree with that 20 characterization. 21 BY MR. HOAG: 22 Q Dr. Morgan was allowed to test production 23 cigarettes for the NNK nitrosamine level; is that 24 correct? 25 MR. FOWLER: Object to the form of the 88 1 question. BY MR. HOAG: 3 Q Is that correct? 4 If Dr. Morgan -- well, in the kind of work 5 that we were doing, it would be inappropriate to use 6 commercial cigarettes, as I indicated before. Okay. So Dr. Morgan was not allowed to use 7 8 commercial cigarettes to do the test for the NNK 9 nitrosamine, nitrosamine on aged sidestream smoke, 10 11 MR. FOWLER: Object to the form of the 12 question. THE DEPONENT: I disagree with the 13 14 characterization. Dr. Morgan obviously has indicated 15 that he freely did many things independently. 16 BY MR. HOAG: 17 Q So if Dr. Morgan wanted to, he could have 18 tested any commercial cigarette he wanted to for the 19 NNK nitrosamine level in aged sidestream smoke; is 20 that correct? 21 MR. FOWLER: Object to the form of the 22 question. 23 BY MR. HOAG: 24 Q Is that correct? 25 A I don't understand why anybody would want 89 1 to. Test commercial cigarettes for the NNK 3 level in aged sidestream smoke? You don't know why anybody would want to do that? 5 A In the context of the work we were doing, 6 that's correct. 7 Q So in the context of the work to find out 8 the components of aged sidestream smoke, you can't 9 understand why anyone would want to know what the NNK level is in commercial cigarettes; is that correct? 10 MR. FOWLER: Object to the form of the 11 12 question. 13 BY MR. HOAG: 14 Q Is that correct? 15 A This was not a routine commercial cigarette 16 testing laboratory. This was a laboratory and a 17 group of individuals that were very focused on basic

```
certain model situations, and in that understanding,
       19
       20
           then being able to potentially effect a change in the
       21 level. Therefore and under those conditions, any
       22 scientist would not want a situation where you would
       23 have variable filler materials, variable over periods
            of years. You cannot control the variables. You
       24
       25
            would not have appropriate controlled cigarettes.
90
        1
            You would be looking at more than one variable. You
            would not then get any information out of those
            studies. Therefore, in terms of good science, it
            would be inappropriate to test commercial cigarettes
        5
            based on the objectives of the work that was done by
        6
            this group at this time.
        7
                    Okay. So the group that Dr. Morgan was a
        8
            part of, as a general policy, they were not supposed
        9 to be testing commercial cigarettes; is that correct?
       10
                     MR. FOWLER: I'm going to object to the
       11 form of the question. It's been asked and answered
       12 several times.
           BY MR. HOAG:
       13
       14
                 Q
                     Is that correct?
       15
                     No.
                 Α
       16
                     It just would have been inappropriate and
       17 unscientific to study commercial cigarettes; is that
       18 correct?
                     In the context of this work.
       19
                Α
                    MR. FOWLER: I object to the form of the
       20
       21
          question.
       22 BY MR. HOAG:
       23
               Q Pardon me?
       24
                A In the context of this work. This was not
       25 a routine laboratory for competitive testing or
91
            commercial cigarette testing.
        1
        2
            Q Competitive testing? Would it be
            competitive testing to find out how many carcinogenic
        3
           compounds and the level of carcinogenic compounds in
        4
        5
           Philip Morris' own cigarettes -- would that be
        6
           competitive?
        7
                     MR. FOWLER: Object to the form of the
        8
           question.
        9
            BY MR. HOAG:
       10
                Q You can answer.
       11
                A
                    No.
       12
                 Q Ma'am?
       13
       14
                    Did Philip Morris ever test its own
       15 cigarettes to find out how many carcinogenic
       16
            compounds are in its own cigarettes?
       17
                     MR. FOWLER: Object to the form of the
       18 question.
           BY MR. HOAG:
       19
       20
                 Q You can answer, ma'am.
       21
                    We have done a lot of work on cigarettes
            over the years, and certainly a variety of cigarettes
       22
            have been tested. Those reports have appeared in the
       23
            literature in some cases. Those reports have -- in
       24
       25
            some cases, specific analyses were done on commercial
92
           cigarettes, depends on the end point. But I'm not
            aware of one study that looked at one cigarette,
```

understanding of the formation of compounds in

```
commercial cigarette and looked at everything in the
    context of that. Certainly we've done many studies
    looking at cigarettes and isolating and identifying
 5
    compounds in smoke.
         Q Well, how many additives or flavorants are
7
    in the Virginia Slims cigarette?
8
9
            I don't know.
10
             Does that have any significance to you as a
11
    scientist?
12
             MR. FOWLER: Object to the form of the
13 question.
14 BY MR. HOAG:
15
        Q You can answer.
             In the context of what?
16
         Q In the context of knowing the interaction
17
18
    of numerous chemicals that are in the additives and
19
    how they interact with the tobacco smoke.
20
             MR. FOWLER: Object to the form of the
21
    question.
22
              THE DEPONENT: In the context of what end
23
    point? I'm not -- I don't understand your question.
    BY MR. HOAG:
24
             The end point being -- at least as I
25
1
    understand the term end point -- the end point being
    when somebody involuntarily inhales the smoke, which
    includes the entire commercial cigarette, not just
 3
    the portions that are tested in a reference
 4
 5
    cigarette.
 6
              MR. FOWLER: Object to the form of the
 7
    question.
8
              THE DEPONENT: That information has been
   thoroughly gathered and reviewed on the individual
9
10 ingredients that are used in cigarettes. That list
11 has been put out publicly a couple of years ago, and
   a group of toxicologists have looked at the data
12
13
    associated with each ingredient of significance in
    this case and have basically said that as intended
14
15 and as used that these should not present an issue.
16 BY MR. HOAG:
17
        Q So did the toxicologists track how those
18 numerous additives interact in a given commercial
    cigarette? Did they do that?
19
         A Scientifically that would be impossible to
20
21
   completely characterize all of the processes going on
22
   in a combustion situation. However, those
23 toxicologists did review chemical and biological data
24 that basically represented a characterization of
    those ingredients in the context and outside of the
25
1
    context of cigarette smoke.
 2
         Q The toxicologists you're talking about were
 3
    funded by the tobacco companies; is that correct?
 4
              MR. FOWLER: Object to the form of the
 5
    question.
 6
    BY MR. HOAG:
 7
         Q Is that correct?
             I'm specifically not aware of how they were
8
    funded. I know they were obtained by Covington and
9
10 Burling, I believe.
11
     Q And who is that?
12
        A A law firm in Washington.
13
        Q And how do you know they were obtained by
```

```
the law firm in Washington?
       14
       15
            A Because that is the group that puts
       16 together the ingredients list for the industry for
       17 health and human services according to the
           regulations every year.
       18
       19
            Q They put together a list of the cumulative
       20
            number of additives in cigarettes; is that correct?
                     MR. FOWLER: Object to the form of the
       21
       22 question.
                     THE DEPONENT: I don't understand what you
       23
       24
           mean by cumulative.
       25
95
           BY MR. HOAG:
        1
            Q Well, they don't put together a list of
        2
        3
           what specific additives are in each specific
           cigarette, correct?
        4
        5
               A Correct.
        6
                O So, for example, a Virginia Slims brand
        7
           might have 100 additives that are cumulatively not
           the same additives that a Marlboro has.
        8
                     MR. FOWLER: Object to the form of the
        9
       10 question.
       11
                     THE DEPONENT: Potentially.
       12 BY MR. HOAG:
       13
            Q Well, you know that's correct.
                A No, I don't know that's true.
       14
       15
                    You don't know what all the additives are
       16 that go in a cigarette?
                A I don't. I know what the total list is.
       17
       18
                    The total list for all cigarettes,
       19 cumulatively, correct?
       20
            A Yes.
               Q Which is not the same as the specific
       21
       22 additives in a specific cigarette brand, correct?
       23
               A That's correct.
                    And how those different additives interact
       24
                O
           with each other in any particular cigarette is
       25
96
        1 nothing you have looked at; is that correct?
                    MR. FOWLER: Object to the form of the
        3
           question.
                     THE DEPONENT: I would think that's
        4
        5
           incorrect.
        6
           BY MR. HOAG:
        7
                Q Okay. So you have looked at how all the
        8 additives, for example, in a Virginia Slims interact
       9 with one another; is that correct?
                A No, I don't think that's possible, as I
       10
       11 indicated, scientifically to look at in that complex
          environment; how all of those materials interact
       12
       13 together.
       14
                    Okay. So when you test, for example,
       15 reference cigarettes, reference cigarettes don't have
       16 any of the additives or flavorants in them, correct?
       17
               A Some do and some don't.
                Q Some reference cigarettes have the
       18
       19
          additives and flavorants in them?
       20
               A If you design an experiment to look at the
       21 flavor, you would have a reference cigarette without
       22 and a reference cigarette with, and that is indeed
       23 part of the data that was looked at by the
       24 toxicologists.
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25
                     Did the toxicologists look at the NNK level
97
        1
            of sidestream, aged sidestream smoke?
                     MR. FOWLER: Would you say that again,
        3
            John, I don't catch that.
        4
            BY MR. HOAG:
        5
                Q Did the toxicologists look at the NNK level
        6
            of aged sidestream smoke?
        7
                 A I don't know.
        8
                      So you don't know if that's something that
            they looked at; is that correct?
        9
       10
                A No, I don't.
                     Is that correct?
       11
                 Q
       12
                    That's correct. I don't know.
                 Α
                 Q Okay. Now, you know that Philip Morris did
       13
       14
           do studies in the '80s related to the NNK level of
       15
           aged sidestream smoke, correct?
       16
                A Yes.
       17
                     And you know that all of the studies that
       18 were done in Richmond were done or at least were
       19 supposed to have been done on reference rather than
            commercial cigarettes, correct?
       20
       21
                     I disagree with that characterization.
       22
                      Well, when Dr. Morgan actually did studies
       23 or found out that he had looked at a Virginia Slims
       24 cigarette, he was admonished and told never to study
       25 that commercial cigarette again for purposes of
98
            measuring the sidestream smoke and looking at the NNK
        1
        2
            level; correct?
        3
                     MR. FOWLER: I object to the form of the
        4
          question.
           BY MR. HOAG:
        5
        6
                 Q
                    Is that correct?
        7
                     Not to my knowledge. No, it's not correct.
                     Well, Dr. Morgan did actually measure the
        8
        9
            NNK level in Virginia Slims cigarettes in aged
            sidestream smoke, didn't he?
       10
       11
                     MR. FOWLER: Object to the form of the
       12 question.
       13
                      THE DEPONENT: Not to my knowledge, no.
       14 BY MR. HOAG:
                     And you made the decision that all the
       15
       16
            documentation of that study that Dr. Morgan had done
       17
            should be destroyed, didn't you?
       18
                     MR. FOWLER: I object to the form of the
       19 question.
       20 BY MR. HOAG:
       21
                 Q
                   You can answer.
       22
                 A I have no recollection of the study that
       23
           you're referencing on Virginia Slims aged sidestream
       24
           smoke or the documents and their destruction. I have
       25
            no recollection of that whatsoever.
99
                     You have no recollection of the destruction
            of the documents; is that what you're saying?
        2
                     I have no recollection that that ever
        3
                A
        4
            occurred.
        5
                      You did instruct someone under your
        6
            supervision to make sure that any documentation of
        7
           the study Dr. Morgan did was destroyed, didn't you?
        8
                     MR. FOWLER: I object to the form of the
        9 question. It also misstates Dr. Morgan's testimony.
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BY MR. HOAG:
       11 Q Didn't you?
       12
               A I have no recollection of anything related
       13 to Virginia Slims aged sidestream smoke, NNK levels
       14 or any documentation associated with that and that
       15
           destruction. I have no recollection of that.
       16
               Q Are you saying you have no recollection but
       17
            it could have happened, you just might not remember
       18
       19
                    MR. FOWLER: Object to the form of the
       20 question.
       21 BY MR. HOAG:
       22
            Q Is that what you're saying?
                    I have -- I mean, I have no knowledge,
       23
       24 experience, data, and other people that I have spoken
       25
          to also do not have that. I have no evidence that
100
        1 that ever occurred.
            Q Did anyone provide you with information
        3 that Dr. Morgan had done a study of the NNK level of
           aged sidestream smoke on a commercial cigarette?
        4
        5
                A Would you please repeat that?
                    MR. FOWLER: Yes, would you please repeat
        6
        7
           that?
        8 BY MR. HOAG:
       9
           Q Yes. I'll rephrase it. Do you know Robin
       10 Kinser?
                    Yes.
       11
               A
                   Who is she?
       12
                Q
       13
               Α
                    Currently she's a scientist, and she
       14 manages the analytical research division.
       15 Q In 1989 did you supervise Robin Kinser?
       16
                A
                    Yes.
               Q Okay. And who supervised Dr. Morgan in
       17
       18 1989?
               A I believe it was Dr. Warfield.
       19
                    And who supervised Dr. Warfield?
                Q
       20
       21
                A Robin Kinser.
       22
                    Okay. In 1989 did Robin Kinser inform you
                Q
       23 that Dr. Morgan had obtained some information
       24 indicating that a commercial cigarette had a higher
       25 NNK nitrosamine level in aged sidestream smoke than
101
          the reference cigarettes had?
        2
                A I have to repeat, I have no knowledge,
        3
          recollection -- as a matter of fact, all I have is
           evidence that that did not occur.
        4
        5
                O Okay. When you say you don't have any
        6 recollection that you were told this in 1989, are you
        7
           sure you weren't told this or you just don't remember
        8
           whether you were told this?
        9
                     MR. FOWLER: Object to the form of the
       10 question.
       11 BY MR. HOAG:
       12
               Q You can answer.
       13
               A I have no, even, inkling that this ever
       14 occurred, not even a touch.
       15
               Q Now, hypothetically, if someone had come to
          you in 1989 and told you that the Virginia Slims
       16
       17
           cigarette had been tested and that the NNK
       18 nitrosamine level in sidestream smoke for the
       19 Virginia Slims was ten times higher than for any
       20 other previously tested reference cigarette, what, if
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anything, would you have done with that information?
       21
       22
             MR. FOWLER: Object to the form of the
       23 question; incomplete hypothetical.
       24 BY MR. HOAG:
       25
             Q You can answer.
102
               A I would do what I just did in the last two
        1
           months, I would do a complete experiment with a
        3
            number of data points in a highly controlled
        4
            situation.
        5
                Q You would do a complete experiment?
        6
                 A Absolutely.
        7
                    You wouldn't tell anyone not to do any
        8
           experiments, correct?
        9
             A No, I would not tell anyone not to do any
       10
          experiments.
       11
                Q You wouldn't discourage people from
       12
            replicating that type of result; is that correct?
       13
                A That's correct, I would not discourage
       14 anyone from finding out. That's appropriate to
       15
          follow up, and that's what we have done in the last
       16
            two months.
       17
                Q So the last two months being, let's see,
       18
            this is May, sometime in April or sometime in March?
       19
                A I think Dr. Morgan's first deposition was
       20 in late February. Within a week after that
       21 deposition we had begun to plan and proceed with
       22 those studies.
               Q The first deposition that Dr. Morgan did in
       2.3
           February, were there any news accounts of that?
       24
       25
                A
                     Yes.
103
        1
                    Did you read about it in the newspaper?
                 0
        2
                     It was pretty much publicly known that
        3
        4
          Dr. Morgan had done this research back in '89; is
        5
           that correct?
                     MR. FOWLER: Object to the form of the
        6
        7 question.
        8
                     THE DEPONENT: No.
        9 BY MR. HOAG:
       10
                    Well, Dr. Morgan's statements about the
       11
            research were in the newspaper prior to the time you
       12
            decided to do any kind of a follow-up study; is that
       13
           correct?
       14
                     MR. FOWLER: Object to the form of the
       15 question.
       16 BY MR. HOAG:
       17
                 Q
                   Is that correct?
       18
                 A I'm trying to think back over -- yeah, I
       19
            believe that is correct. I think I got the
       20
            deposition probably when the media got the
       21
           deposition, and it was within a matter of days, as I
       22
           indicated.
       23
                     Okay. And prior to the time Dr. Morgan's
       24
           deposition was taken and the media report was
       25
            published, did you know that Dr. Morgan had done a
104
        1
            study measuring the NNK nitrosamine level of Virginia
        2
           Slims cigarettes?
        3
                     MR. FOWLER: I'm going to object to the
        4 form of the question; assumes facts not in evidence.
           If you want to refer to his allegations, I think that
```

```
would be a more appropriate way to proceed, rather
            than to assume that the testing was actually done.
            BY MR. HOAG:
        8
        9
                Q You can answer the question, ma'am.
                A I'm not sure I understand the question.
       10
       11
            Would you repeat it, please?
                      \ensuremath{\mathsf{MR}}\xspace . HOAG: Can the court reporter read back
       12
       13
            the question, please?
       14
                      (Last question read back)
       15
                      MR. FOWLER: I'm going to repeat my
       16 objection.
       17 BY MR. HOAG:
       18
                Q You can answer, ma'am.
                 A Obviously not.
       19
                     Is that because if you would have known of
       20
            such a study, you would have immediately attempted to
       21
            replicate it; is that correct?
       22
       23
                     MR. FOWLER: Object to the form.
       24
                      THE DEPONENT: I certainly would have done
       25 that.
105
        1
            BY MR. HOAG:
                     And you would have made sure that the
        2
        3
            studies, the replication studies were provided to the
        4
            scientific community, correct?
        5
                      MR. FOWLER: Object to the form of the
        6
            question.
        7
            BY MR. HOAG:
        8
                 0 Is that correct?
        9
                     I would make sure that if we had knowledge
       10 of significance to the scientific community, that it
       11 would be provided.
       12
                    And Philip Morris never withholds any
       13
            scientific evidence they have from the rest of the
            scientific community; is that correct?
       14
                      MR. FOWLER: I object to the form of the
       15
       16 question.
                      THE DEPONENT: Philip Morris does research
       17
       18 based on products, and a lot of that research is
       19
            proprietary. And it would certainly be inappropriate
       20
            for any company to divulge research that could or
       21 would provide any kind of proprietary advantage to
       22
            that company.
       23
            BY MR. HOAG:
              Q Is research on the health affects of
       24
       25 tobacco smoke proprietary information?
106
        1
                      MR. FOWLER: Object to the form.
        2
            BY MR. HOAG:
        3
                     You can answer.
                 Q
                 A Not if it's the general addition of
        4
        5
            knowledge that's important to the consumer, but if it
        6
            relates to product technologies or an understanding
        7
            of the product, it would be.
        8
                     Did you write or sign any of the work
        9
            evaluations or performance evaluations for
       10
            Dr. Morgan?
       11
                 Α
       12
                      Which ones?
       13
                     Oh, probably beginning from the time that I
       14 was a section leader all the way -- of the
       15 biochemical research division -- all the way through
       16 to being director of research, I would have been
```

```
involved in his performance reviews at one level or
       18 another.
       19
                Q Okay.
       20
                    But I never directly, to my recollection I
                A
       21 never directly wrote or prepared his performance
       22 review.
       23
                    Did he receive less than a satisfactory
               Q
       24
            evaluation?
       25
                A He did receive less than satisfactory on
107
           some elements of his performance appraisal, but not
        1
           overall.
        3
                    So he never received less than an overall
                Q
        4
           satisfactory performance evaluation; is that correct?
                A I'll repeat, he received less than
        5
        6
           satisfactory on certain elements of certain
        7
           appraisals, but never overall.
        8
               Q So his overall performance evaluations were
        9
            always at least satisfactory; is that correct?
       10
                     MR. FOWLER: Asked and answered.
       11
            BY MR. HOAG:
               Q Is that correct?
       12
       13
                     We called it, meets requirements.
                Α
       14
               Q And you signed those performance
       15 evaluations, correct?
       16 A That's correct.
       17
                    And when you sign them, does that mean you
       18 agree with them?
       19
                A It means that I've reviewed them and that
       20
          I've understood that the evidence indicated is
       21 consistent with the appraisal outcome, relative to
       22 other individuals.
       23 Q Did you consider Dr. Morgan to be a
       24 competent scientist?
       25
            A Yes.
108
            Q Now, you said you've spoken to Robin Kinser
        1
        2 about Dr. Morgan; is that correct?
        3
                     MR. FOWLER: Object to the form.
        4
                     THE DEPONENT: I don't think I ever spoke
        5
          to Robin specifically about Dr. Morgan, and I have
           not spoken to Robin in quite some time. When his
        6
           first deposition was made public, I did speak to
        7
          Robin at that time.
        8
        9
           BY MR. HOAG:
       10
                Q And what did you say to Robin at that time?
       11
                    I asked her whether she had any
                A
       12 recollection of this ever occurring; the allegation
       13 ever occurring.
       14
                   And what did she say?
                Q
       15
                Α
                Q Okay. What is Robin's current position?
       16
       17
                    As I indicated, she's manager of analytical
                Α
       18 research.
       19
               Q
                    Did you speak to anyone else concerning
       20 Dr. Morgan?
                    As an individual or the work that he
       21
       22
            alleged occurred?
                Q Concerning the contents of his deposition.
       23
       24
                     Again, I had Dr. Ferguson work on repeating
       25 that experiment and gathering information on the work
109
        1 that was done both in Richmond and in Neuchatel and
```

```
interacting with Neuchatel on that experiment.
        2
                 Q And has that experiment been completed now?
        3
        4
                 A
                     Yes.
        5
                     And how long ago was it completed?
                     I would say it was the middle of April that
        6
                A
        7
            the final report came.
                 Q And how long did it take to complete?
        8
                    It was begun late February, and it took
        9
       10
            March, most of March and sometimes two shifts of
       11
            individuals working in the room to get the data.
       12
                 Q And why did it take two shifts?
       13
                     Because there were -- the room had to be,
       14
           again, recalibrated and set-up like it was in that
       15
            period of time, and you had multiple samples that had
       16
            to be tested, and multiple analyses that had to be
       17
       18
                      When you say, multiple samples, what do you
       19
           mean?
       20
                     What I mean is, you don't just do one
       21 smoking of a cigarette, you do numerous smokings in
       22
            order to look at the variability.
                Q Okay. And how many were done?
A I would say it varied, but I would say at
       23
       24
       25
            least five or six were done on most of the models
110
        1 tested.
                     When you say, most of the models tested,
        3
           what models were tested?
                A Two controlled cigarettes that were the
        4
        5
            standard controls used in the room in the '80s,
        6
            Marlboro 100s -- Marlboro Light 100s and Virginia
        7
            Slims 100s.
        8
                     You say two controlled cigarettes that were
                Q
        9
           used in the '80s?
       10
                A That's correct.
                Q How were these controlled cigarettes
       11
       12
            purchased, at a grocery store?
                A No, they were reference cigarettes. This
       13
       14 is our way of determining whether or not the room is
       15 operating and there is any variability. From time to
       16 time, if you're continually testing different samples
       17
            and you don't have controlled samples that you test,
       18
            if you're testing over a period of time, you have no
       19
            way of knowing whether or not your conditions have
       20
           changed.
       21
                     Other than the two different reference
                Q
       22 cigarettes that were tested, what other cigarettes
       23 were tested?
       24
                A
                     I just told you, Marlboro Light 100s and
       25 Virginia Slims 100s.
111
        1
                     Were those commercial cigarettes?
        2
                Α
                     Yes, purchased in Richmond in late
        3
            February.
                     Okay. Now, in the reference cigarettes,
        5
            what were the results?
                     MR. FOWLER: I'm going to object to the
        6
            form of the question. That's vague.
        7
        8
            BY MR. HOAG:
        9
                Q You can answer.
       10
                 A Basically the focus was on -- a number of
       11 points over time were taken, that is, a number of
       12 samples from the room were taken over time up to say,
```

```
five and a half, six hours time period. So
       13
       14
            therefore, you know, 30 cigarettes, approximately,
       15
            were smoked in the room and allowed to age over a
       16
            period of hours. And then samples were taken during
           that period of time and analyzed for NNK and other
       17
       18
            parameters. Basically NNK did increase over time in
            all samples, and my recollection of the data was that
       19
       20
            there was no statistical difference overall in any of
       21
           the samples, and there was a lot of variability also.
       22
                Q
                     And is there written documentation of these
       23
            studies?
       24
                Α
       25
                     Were any of these documents destroyed or
112
        1
            thrown away?
        2
                     MR. FOWLER: Object to the form of the
        3
           question.
        4
                     THE DEPONENT: No. We just performed them.
        5
           BY MR. HOAG:
        6
             Q So all of the results of every single one
        7
            of these studies is still kept, correct?
                     MR. FOWLER: Object to the form of the
        8
            question; all what studies?
        9
       10
            BY MR. HOAG:
                     Talking about the studies that you're
       11
       12
            talking about right now that you did after the
           deposition of Dr. Morgan.
       13
                     Yes, all the documentation is available.
       14
       15
                     Okay. Where is that kept?
       16
                     The final report we have a copy of in
       17
           Richmond. All of the other documentation around the
           study would be kept in Neuchatel, where the study was
       18
       19
           done.
       20
                Q Okay. So you said there's a lot of
            variability. What's the range of variability?
       21
       22
                A I point that out because interestingly for
       23
            NNK there tends to be much more variability than
           there is for any other nitrosamine, and that has,
       24
       25
           over the years, given us technical concern over the
113
           artifact formation being prevalent in this kind of
            analysis. In other words, the number that you would
            get would not be representative of what is actually
        3
            occurring in that room, and certainly a model room is
        5
            not representative of any other environment.
        6
                 Q What was the range of variability?
        7
                A Basically for NNK the range of variability
        8
            would be in terms of 1,000 or more nanograms.
        9
                Q Right. What was the minimum and what was
       10
            the maximum?
       11
            A I could not give it to you off the top of
       12
            my head.
       13
               Q The maximum more than 10,000 nanograms?
       14
                    I don't believe I recall a figure in any of
       15
            those samples being more than that, no.
       16
                Q Do you recall it being such as that?
                    No. I think the maximum was somewhere
       17
                Α
            around 8 or 9, as I recall.
       18
                Q Eight or nine thousand nanograms?
       19
       20
                A Correct.
       21
               Q In one cigarette?
       22
                A No.
       23
               Q
                     In what measurement?
```

```
Α
                      The maximum over time?
        25
                 Q
                      Yes.
114
        1
                 A
                     I don't have that data in front of me, and
            I don't want to misrepresent it.
        3
                     So we would like to see all of that data,
            we're asking for all of the data that you've
            collected, after the deposition. Are you relying on
        5
        6
            that data for any part of your testimony?
                      MR. FOWLER: I'm going to object to the
        7
        8
            form of the question.
        9
            BY MR. HOAG:
                     Are you relying on that data for any
       10
       11
            portion of your testimony or any opinions that you
       12
       13
                      Certainly, if that becomes a topic, I
       14
            would.
       15
                      MR. HOAG: We would like to have copies of
       16
            all of that data that she's relying on as the basis
       17
            for any opinion concerning the NNK nitrosamine level
       18
            of aged sidestream smoke, and also we will, once we
            receive that data, we will need to complete this
       19
       20
            deposition.
       21
                      MR. FOWLER: This deposition will be
       22
            completed when we're done today, and I'll pass along
       23
            your informal request to trial counsel.
                      MR. HOAG: I understand your position
       24
       25
            concerning the deposition, but I'm giving you our
115
        1
            position on the deposition.
        2
                      MR. FOWLER: Understood.
        3
            BY MR. HOAG:
         4
                     Okay. So your recollection is somewhere
            around 8,000 nanograms, 8- or 9,000 nanograms was the
        5
            highest reading for NNK?
        6
        7
                      That's correct.
        8
                      And you don't know whether that was for one
                 0
        9
            cigarette or not?
                 A I'm not sure if the graph represented what
       10
       11
            was in the room or was divided by the number -- I
            believe it was divided by the number of cigarettes.
       13
                     Okay. So that 8- or 9,000 reading, was
            that for a commercial cigarette?
       14
                 A No -- I'm sorry, yes.
       15
       16
                      So the highest level reading was for
       17
            commercial cigarettes; is that correct?
       18
                     No, not necessarily. As I said, there was
       19 no statistical difference between those samples. You
       20
            asked me what was the highest level of all.
       21
                     Right.
                 Q
       22
                    But that was not -- there was a lot of
                 Α
        23
            variability. And there were also, within the same
       24
            cigarette, other samples that were significantly
        25
            lower or much lower.
116
                      That 8- or 9,000 nanograms reading that you
        1
            recollect, that was in a commercial cigarette; is
        2
         3
            that correct?
                      Yes, I think that could be represented by
         4
        5
            the commercial cigarette. It may also be represented
            by one of the references, too.
        7
                     So it might have been both?
                 Q
                      Yeah. Like I said, there was no indication
                 Α
```

```
of a statistical difference, especially at the aged,
       10
          that is, five and a half hour time point.
       11
            Q And how did you decide how many times you
       12
            were going to do these tests?
       13
           A I did not make that determination, the
       14
            scientists did.
       15
               Q Who did?
                    Pardon me?
       16
                Α
                Q
                    Who did?
       17
       18
               A The scientists.
       19
               Q How did they make that determination? What
       20 was it based on?
               A I think that it was based on a reasonable
       2.1
       22 number of replicates.
       23
            Q What were a reasonable number of
       24
          replicates?
       25
                    I think that's based on what the data is
            A
117
        1 and the variability in the data and whether or not
           you're going to, in any way, get a different
           conclusion or there's something wrong with your
        3
           analysis; you have to make that determination.
        5
                    How long did it take them to complete the
        6
           study from the time they started till the time they
        7
           completed it?
        8
                A Like I said, I believe they started at the
        9 end of February. And I think most of the
           experimental work was done or finished or completed
       10
           in March, and then it was a matter of working on the
       11
       12
           data and the report.
       13
                Q So it took about a month?
       14
                    Yes.
                Α
       15
                    And how many scientists worked on it?
                A I believe there were a number of
       16
       17 technicians and one or two scientists, so I think
       18
          there were up to four or five people working on this.
           Again, as I indicated, there were two shifts of
       19
          individuals for some periods of time.
       20
       21
            Q When the results were achieved, did they
       22 send the results directly to you?
       23
           A Not directly to me, they sent it to
       24 Dr. Ferguson.
       25
                    And he sent it to you?
                Q
118
        1
                Α
                    He gave it to me or in some cases he would
        2
          tell me results over the phone.
        3
                Q Do you supervise Dr. Ferguson?
        4
                    Ultimately, but not directly.
        5
                    You supervise whoever supervises
                Q
        6
           Dr. Ferguson; is that correct?
        7
                A Yes.
        8
                Q
                    Who supervises Dr. Ferguson?
        9
                A Dr. Cox.
       10
               Q Is that who you supervise directly?
       11
               A That's correct.
       12
                Q Okay. And who does Dr. Ferguson supervise?
                    Who does he supervise?
       13
                A
       14
                Q
                    Yes.
       15
                    No one right now. He functions as a senior
                Α
       16 technical chemist who basically assists in studies
       17 like that or special studies.
       18
               Q Where is he based?
       19
                A In Richmond.
```

```
20
                    Okay. So what was Dr. Ferguson's role in
       21 the completion of the study?
       22 A His role was to interact with Neuchatel to
       23
            get the study done.
                Q Who did he interact with at Neuchatel?
       24
       25
                A Primarily Jean-Jacques Piade, Dr. Piade.
119
                Q
        1
                    What's Dr. Piade's position?
        2
                Α
                    He's, again, a senior technical chemist in
        3 Neuchatel.
                    And who supervises him, Dr. Piade?
        4
        5
                    Dr. Suber, S-U-B-E-R.
                A
        6
                    And who supervises Dr. Suber?
                Q
                    Dr. Kassman.
        7
                Α
                    Who does Dr. Kassman report to?
        8
                Q
                    He reports to the operations individual in
        9
                A
       10 Lausanne, Switzerland, Klaus Schmidt.
       11 Q Who supervises him?
       12
               A The president of Philip Morris Europe or
       13 EU.
       14
                   Who is that?
                Q
                A At this time -- there was just an
       15
       16
           organizational change, and the individual, I believe,
       17
           is Mr. Hendrys. I'm not sure if that's correct.
                Q And who supervises Mr. Hendrys?
       18
       19
                A At this period in time he would probably --
       20 again, we have had some organizational changes.
           Today he would probably report directly to Bill Webb.
       21
          Sorry, he would report directly to Mr. Gimbler, who
       2.2
       23
           would be the head of Philip Morris International, and
       24
           he would report to Bill Webb.
       25
               Q Who is Bill Webb?
120
                A Who is Bill Webb?
        2
                    Uh-huh.
                Q
        3
                A He's basically in charge of operations for
           Philip Morris Companies, Incorporated, worldwide.
        5
               Q Who supervises him?
               A Jeff Bible.
        6
        7
               Q Jeffrey Bible?
        8
               A Right.
       9
                Q And what is Mr. Bible's position?
                A He's chairman and CEO.

Q Have you had any communications with
       10
       11
       12 Mr. Bible concerning Dr. Morgan's deposition and/or
       13 this study?
       14
            A No.
       15
                    Has anyone, to your knowledge, had any
       16 communication with Mr. Bible concerning this study?
       17
               A Not to my knowledge.
                Q
                    Not to your knowledge?
       18
                A Not to my knowledge.
       19
       20
                    When you decided to do this study, did you
       21 ask someone else if you could do it or did you just
       22 make the request on your own?
       23
                    I did meet with some individuals and said
       24
          this is what I wanted to do.
       25
                    What individuals did you meet with?
                Q
121
                A Chuck Wall and John Mulderig.
        1
        2
               Q Who are they?
        3
               A Two lawyers in New York for Philip Morris.
               Q So you met with two Philip Morris lawyers
```

```
before you actually implemented your request --
        6
                A Yes.
        7
                 Q
                     -- and your study, correct?
        8
                     Correct.
        9
                     What did they tell you?
       10
                     MR. FOWLER: I'm going to object to any
       11
            inquiry into what Dr. Ellis talked to company lawyers
       12
            about.
            BY MR. HOAG:
       13
       14
                     Okay. What did they tell you?
                Q
       15
                     MR. FOWLER: I'm going to instruct the
            witness not to answer on the basis of privilege.
       16
       17
                     MR. HOAG: I'm going to certify the
       18
           question --
       19
                     MR. FOWLER: Fine.
       2.0
                     MR. HOAG: -- related to what the lawyers
       21
          told you about your request to do the research
       22 concerning Dr. Morgan's deposition.
       23
                     MR. FOWLER: Fine.
       24
            BY MR. HOAG:
       25
                    And how long did you speak with these two
               Q
122
        1
           attorneys?
        2.
                     MR. FOWLER: You may answer as to the
            length, but not the substance.
        3
        4
                     THE DEPONENT: I would say very briefly;
        5
           ten minutes.
           BY MR. HOAG:
        6
        7
                     And after you spoke with them, what did you
        8
           do?
        9
                A
                    I went to another meeting.
       10
                 Q With who?
       11
                    I don't recall. At the time I was in New
       12 York for another purpose, though.
            Q Well, how soon after you spoke with them
       13
       14
            did you implement your decision to request a study?
       15
                A Either that day or the next day.
                     Did you do that with a phone call?
       16
       17
                     I don't recall precisely how that happened
                Α
       18 at the time.
       19
                     You didn't do it in writing though,
               Q
       20 correct?
                    No, I did not do it in writing.
       21
             A
       22
                Q
                     Okay. Why did you not put your request in
       23
           writing?
       24
               A I had no reason to.
       25
                    When you request a research study, do you
123
        1 usually put it in writing or do you usually just do
           it orally?
        3
                     When I request something to be done, I
               A
        4
           usually do not put it in writing.
        5
            Q This was kind of a major undertaking,
        6
           correct?
        7
                     MR. FOWLER: Object to the form of the
        8
           question.
        9
            BY MR. HOAG:
       10
                    Was this a major undertaking, to do this
       11
           study?
       12
                     I would -- I mean, relative to other
       13 projects it may not be major, but it certainly isn't
       14 a day in the lab, obviously.
       15
                Q What was the budget for this?
```

```
Q How much did it cost to do it?
       17
       18
               A I have not done that analysis.
       19
               Q Who would be responsible for that analysis?
       20
               A I don't know if it will ever be done.
       21
                    Does it come out of your budget?
               Q
               A No, not necessarily, although it may be
       22
       23 charged back. I'm not sure how that will work.
       24
           Q Well, who did you contact to get the ball
       25
           rolling, to get the study done?
124
                    Again, I spoke with Robin Kinser. I also
           spoke, I believe, with Dr. Kassman, in other words,
        2.
           to ask whether or not that was something that we
        3
           could do. In order to assess the feasibility of the
        4
        5
           study, I actually spoke to Dr. Kassman.
               Q All right. And did he tell you it was
        6
        7
           something you could do?
        8
               A Yes.
        9
                Q
                    And then what happened?
                A We did it.
       10
               Q How did it get accomplished? Did they
       11
       12
           contact people or did you --
       13
           A I'm sorry, who is they?
       14
                Q
                    Kassman.
       15
                    Yes, the study was done in his organization
                A
       16 by individuals that report to him.
                    That report to Kassman?
       17
                Q
                   That's correct.
       18
                Α
                    And is Kinser in his organization?
                Q
       19
       20
                Α
                    No. Dr. Kassman is in charge of the
       21 organization in Europe.
       22
           Q So after you told Dr. Kassman what you
       23
           wanted, did you do anything else related to this
       24
           study?
       25
                A You mean -- I'm not sure. The question is
125
        1
           very vague. I'm not sure I understand.
            Q Did you have to do anything else to get the
        2
        3
           study accomplished, other than talk to Dr. Kassman?
               A I got periodic updates about, you know, the
        5
           progress of the study, issues, the fact that they
           would have to go on to double shifts, the fact that
        6
        7
           they had to do some set-up and calibration of the
        8
           equipment, and basically other than that, no, I had
        9
           no other involvement, other than getting the status
       10
           report.
       11
                    How frequently did you get status reports?
                O
                    I don't think it was regular. I think it
       12
                A
           was when they had data, that they would call and let
       13
       14
           us know what was going on.
       15
            Q So the status reports were not in written
       16 form?
       17
            A That's correct. It was a phone call.
       18
               Q So everything was done orally up until the
       19
           final report was written; is that correct?
                    MR. FOWLER: Object to the form of the
       20
       21
           question.
       22
           BY MR. HOAG:
               Q Is that correct?
       23
       24
               A No.
       25
               Q Well, what was put in writing? Was
126
```

There was no specific budget for this.

16

Α

```
anything put in writing to you before you received
          the final report?
                A I did receive some tables of some --
        3
            actually graphs of some preliminary data.
                 Q When did you receive that?
        5
        6
                 A A few weeks before the final report. But
        7
            it was not all of the data, at the time; they were
            continuing to do some other experiments.
                Q Uh-huh. And did you inform Dr. Kassman
        9
            about the deposition of Dr. Morgan?
       10
       11
            A Yes.
       12
                    Were all the scientists who participated in
       13 this project aware of the deposition of Dr. Morgan?
       14
                 A I don't know.
                     MR. FOWLER: Hey, John, whenever you reach
       15
       16
            a good point, we have been going for about an hour
       17
            and twenty minutes or so; if we could take a break
       18
            whenever you get to a point.
       19
                     MR. HOAG: Okay, in a couple of minutes.
       20
            Actually, I guess now would be okay. If we're going
       21
            to take a break, how about five minutes, okay,
       22
            because I expect to be done in an hour.
                     MR. FOWLER: If that's okay with you,
       23
       24
            Doctor?
       25
                     THE DEPONENT: That's fine.
127
        1
                     (Recess taken)
                     MR. FOWLER: We're ready to go again, John.
        2.
        3
           BY MR. HOAG:
        4
                Q Okay. Dr. Ellis, you were talking about
        5
            the study that was done in Switzerland within the
            last couple of months, and you said that the
        6
            sidestream smoke was aged over a period of five and a
        7
            half to six hours; is that correct?
        9
                     That's right.
                 Α
                Q Did the NNK level increase each hour or did
       10
       11
            it stabilize at some point?
                A There was -- if you would look at the graph
       12
       13 of that data for every cigarette, you would see an
       14 increase over time. Whether or not there was a
       15 significant increase every hour, I don't think the
       16 data was analyzed that way.
                Q Did it look at each hour, for example? Did
       17
       18
           it do measurements after one hour?
       19
                A Samples were taken at various points in
       20
           time up to sometimes past five and a half, six hours,
       21 and I'm not sure what the maximum was, but certainly
       22 it included five and a half hours. And again,
           basically the level of NNK did increase up to five
       23
            and a half hours, at which point it generally
       24
       25
            flattened out.
128
                     Was it higher after five hours than it was
        1
            after one hour, the level of NNK?
        3
                 Α
                    Yes.
        4
                     Okay. What kind of increments did they
            measure it in? Was it every twenty minutes, every
        5
        6
            hour or what?
                A It was basically certainly not every twenty
        7
        8 minutes. It was every hour or maybe every hour and a
        9 half; they took certain time points along that curve.
       10
                Q Now, are you familiar with environmental
       11 tobacco smoke, what the components of environmental
```

```
tobacco smoke are?
       13
            A In some cases, yes.
       14
                    What are the components of environmental
                Q
       15 tobacco smoke?
               A There are a number of different components,
       16
       17
            and obviously that is very complex material and the
            components of environmental tobacco smoke are
       18
       19
            dependent on a number of different situations,
            including situations relating to the materials in the
       20
       21 room and the environment of the room, the ventilation
       22 of the room. There are a lot of variables associated
       23 with environmental tobacco smoke.
       24
                     MR. FOWLER: John, if I could just
       25 interject at this point, just so the record is clear,
129
        1
           we have not designated Dr. Ellis as an expert in
        2
           environmental tobacco smoke, but I don't object to
        3
           you asking her questions, to the extent that she's
           able to answer those. I wanted to make that clear
        5
           for the record.
        6
           BY MR. HOAG:
        7
             Q Does environmental tobacco smoke include
        8
          aged sidestream smoke?
        9
               A Not necessarily to the same, in the same
       10 sense of that model system, no.
       11
            Q Does it include aged sidestream smoke?
       12 Does environmental tobacco smoke include aged
       13 sidestream smoke?
                A If you are saying that environmental
       14
       15
           tobacco smoke includes sidestream smoke that has
       16
          aged, that's correct, but if you're saying that
       17 environmental tobacco smoke includes aged sidestream
       18 smoke that is characterized by the room, that is
       19
           incorrect.
       20
                     So Philip Morris has known since the early
       21
            1980s that the nitrosamine level increases as the
       22
            sidestream smoke ages, correct?
                     MR. FOWLER: Object to the form of the
       23
       24
           question.
       25
130
           BY MR. HOAG:
        1
        2
               Q Is that correct?
                    The model situation, which is highly
        3
        4
           artificial, number one, indicated that. In the model
        5
           you would see potentially an increase in NNK. The
           other issue is artifact formation that might be
        6
        7
            occurring upon collection of this material. It is
        8
           not in any way a given that the room and numbers
        9
            represented in previous studies are in any way
       10
            related to the real environment.
       11
                     You're not a measurement expert, correct?
       12
                     MR. FOWLER: Object to the form of the
       13 question.
       14 BY MR. HOAG:
       15
                    Is that correct, you're not an expert in
       16
           measurements?
       17
               A I'm not an analytical chemist, if that's
       18
            what you're asking. I am a scientist.
       19
                Q You are a what?
       20
                    I am a scientist, and scientists do measure
                A
       21 things.
       22
                    MR. FOWLER: John, I think the confusion
```

```
MR. HOAG: I'll withdraw the question.
       24
       25
131
            BY MR. HOAG:
                O
                    Does cigarette smoking cause lung cancer?
        3
                     Cigarette smoking has been and there is
        4
            evidence that cigarette smoking is a risk factor. It
        5
            is inappropriate to say based on technical evidence
        6
            available that it causes lung cancer, and it's
        7
            inappropriate to say that there isn't a possibility
            that it might be -- it is inappropriate to say that
        8
        9
            it wouldn't possibly cause lung cancer. That is the
            definition of a risk factor.
       10
       11
                Q So as a scientist, your opinion is that you
       12
          don't know whether cigarette smoking causes lung
           cancer; is that correct?
       13
       14
                     MR. FOWLER: Object to the form of the
       15 question.
       16 BY MR. HOAG:
       17
                Q Is that right?
                     As a scientist in reviewing all of the data
       18
       19
            that is available, the data indicates that there is
       20
           an association between -- there is a statistical
       21 association between smoking and lung cancer, but the
       22 technical data that would be necessary in order to
       23 prove cause and effect is not available.
                Q Well, does cigarette smoke cause any
       24
       25 diseases?
132
                Α
                      I would have to say that there are
        1
        2 associations between smoking and other diseases, but
            my answer would be the same.
                     Does environmental tobacco smoke cause any
             Q
        5
            diseases?
        6
                      MR. FOWLER: Object to the form. You can
        7
           go ahead and answer.
                      THE DEPONENT: There are reports about
        8
        9
           environmental tobacco smoke being a risk factor. But
       10
            again, other than that, I think in that case the data
       11
            is, in terms of risk factor, data is very weak.
       12
           BY MR. HOAG:
                     Okay. So what is your -- as a scientist,
       13
                Q
       14
            do you believe cigarette smoking, environmental
       15
            tobacco smoke, causes any diseases?
       16
                     MR. FOWLER: Object to the form of the
       17
            question.
       18
                      THE DEPONENT: I don't believe there is
       19 scientific evidence indicating that, that is correct.
       20
            BY MR. HOAG:
       21
                Q Now, if, in fact, aged -- the amount of
       22 NNK, tobacco specific NNK increases in aged
       23
            sidestream smoke, would that change your opinion as
       24
            to whether or not there is evidence to indicate that
       25
            environmental tobacco smoke causes disease?
133
                      MR. FOWLER: I'm going to object to the
        1
        2
            form of the question; misstating prior testimony.
        3
            BY MR. HOAG:
        4
                Q You can answer the question.
        5
                 A I'm going to have to either have that
            repeated for me --
                      MR. HOAG: Could you read it back, please?
```

is, measurement of what.

```
8
                      (Question read back)
        9
                     MR. FOWLER: Same objection.
       10 BY MR. HOAG:
       11
                     You can answer.
               Q
       12
                     If -- well, here's my problem. If, in
       13 fact, aged sidestream smoke increases and NNK
          increases in aged sidestream smoke, in what, in the
       14
       15
            chamber?
       16
                 Q In smoke that is inhaled by involuntary
       17
            smokers.
       18
                     I would have to say that, no, that that
       19 would not prove that smoking or ETS in any way is
           associated directly with disease.
       2.0
       21
                     Well, the reason that Philip Morris looks
       22
           at the nitrosamine level is because they know that
       23
           nitrosamines, tobacco specific nitrosamines are
            carcinogenic compounds; is that correct?
       24
       25
                     MR. FOWLER: Object to the form of the
134
        1 question.
            BY MR. HOAG:
        2
        3
                Q Is that correct?
                   Certain nitrosamines have been shown to be
        4
                 Α
        5
           animal carcinogens under certain circumstances and
        6
           certain conditions.
        7
                Q Right. Tobacco has been known to contain
        8 carcinogenic compounds; is that correct?
                     MR. FOWLER: Object to the form of the
        9
       10
           question.
       11
                     THE DEPONENT: Not all of them.
       12
           BY MR. HOAG:
       13
                Q Well, NNK nitrosamines; is that correct?
       14
                 A That has been known to be an animal
       15 carcinogen under certain circumstances and
       16
           conditions.
       17
                 Q Now, on a package of cigarettes today the
       18
           surgeon general's warning will say that -- at least
           on some of the packages, I know the warning may vary,
       19
           but some of the cigarette packs will say, smoking
       20
       21 causes lung cancer, heart disease and emphysema. Do
       22 you agree with the surgeon general's warning that
       23
           smoking causes lung cancer, heart disease and
       24
            emphysema?
       25
                     MR. FOWLER: Object to the form.
135
                     THE DEPONENT: Technically speaking in
        1
        2
          terms of having data to prove the cause, no, I don't
        3
           agree.
        4
            BY MR. HOAG:
        5
             Q In a non-technical sense do you agree that
        6
            smoking causes heart disease?
        7
                     MR. FOWLER: Sorry, John, you broke up at
        8
            the beginning of the question.
            BY MR. HOAG:
        9
       10
                     In a non-technical sense do you agree that
       11
            smoking causes lung cancer, heart disease and
       12
            emphysema?
                     MR. FOWLER: Object to the form.
       13
       14
                     THE DEPONENT: I don't know if I understand
       15
          what non-technical sense means.
       16 BY MR. HOAG:
       17
                Q Well, you put that caveat in the front, in
       18 a technical sense. I don't know --
```

```
That's right. The data that would be
       20 required in order to prove cause and effect doesn't
       21 exist in those situations.
       22
               Q So then your testimony is that as a
       23 scientist you do not agree that lung cancer, heart
       24 disease -- that smoking causes lung cancer, heart
           disease and emphysema; is that correct?
       25
136
                     MR. FOWLER: Object to the form of the
        1
        2 question. It misstates her former testimony.
        3
                    THE DEPONENT: I would have to have it
        4 repeated.
        5
           BY MR. HOAG:
        6
                    I'll repeat it. As a scientist, you do not
          agree that lung cancer, heart disease and
        7
        8
           emphysema -- that smoking causes lung cancer, heart
        9
           disease and emphysema; is that correct?
       10
                    MR. FOWLER: Same objection.
                     THE DEPONENT: As I said, the technical
       11
       12 data required to prove cause and effect does not
       13 exist. There are risk factors and there are
       14 statistical associations.
       15
           BY MR. HOAG:
                Q Do you smoke?
       16
       17
                A Occasionally.
       18
                Q How frequently do you smoke?
       19
                A Oh, I would say whenever I want to
       20 subjectively evaluate a product. I will smoke in
       21 those situations.
       22
            Q You say that you smoke in order to test
       23 actual products of Philip Morris?
               A In an informal basis, yes.
       24
       25
                Q Do you smoke for any other reason?
137
        1
               A No.
                Q Have you ever smoked for any reason other
        2
            than to test Philip Morris products?
            A Informally, occasionally I'll pick up a
        4
        5 cigarette, yeah.
        6
               Q How frequently will you smoke other than to
        7
           test Philip Morris cigarettes?
        8
                A Not very frequently.
                    How many cigarettes a week?
        9
                    I wouldn't measure it by weeks. I would
       10
       11 say maybe I'll smoke a pack of cigarettes a year.
       12
            Q Have you ever smoked more frequently than
       13 that?
       14
            A No.
       15
                    When did you first start to smoke?
                    MR. FOWLER: I'm going to object to that
       16
       17 characterization.
       18
                     THE DEPONENT: I would say within the last
       19 five or six years.
       20 BY MR. HOAG:
       21
               Q Other than five or six years ago, prior to
       22 that, you didn't smoke cigarettes at all; is that
       23
           correct?
                     To my recollection, that's correct.
       24
               Α
                     Did you ever try cigarettes as a teenager
       25
138
        1 or try a cigarette as a teenager?
               A Not to my recollection.
                Q And why did you never try cigarettes as a
```

```
5
             A I just never did.
        6
                Q Now, the one pack or so a year that you
        7
           smoke, are most of those cigarettes that you smoke,
          are they for purposes of testing Philip Morris
        9
            products?
                     Again, I don't formally test Philip Morris
       10
       11
            products. I would occasionally, in a meeting or
       12
            other situation, smoke a cigarette.
       13
                     Now, the fact that you didn't smoke until
       14
            five or six years ago, did that have anything to do
       15
            with the health affects of cigarette smoking?
       16
                     No.
       17
                     MR. FOWLER: Object to the form.
            BY MR. HOAG:
       18
       19
                     Do you have any concern about the possible
       20
            health affects of cigarette smoking?
       21
                      MR. FOWLER: Object to the form.
       22
                      THE DEPONENT: Obviously there are warning
       23
          labels on packs that cigarette smoking is a risk
            factor. That is clearly information that's provided.
       24
       25
139
           BY MR. HOAG:
        1
        2
                Q If your children asked you if they should
           smoke, would you give them any advice?
        4
                A
                     Yes.
        5
                     What advice would you give them?
                 Q
                    Wait until you're of legal age and make
        6
        7
           your decision based on the information available to
        8
           you and what you can find out in an educated way at
        9
           that time.
       10
                     Other than telling them to wait until
           they're of legal age to decide whether they're going
       11
            to smoke, would you impart any information to them
       12
       13
            about your knowledge of cigarettes if they asked you
       14
            today --
       15
                      MR. FOWLER: Object to the form.
       16 BY MR. HOAG:
       17
                 Q -- whether they should smoke?
       18
                      MR. FOWLER: Object to the form.
       19
                      THE DEPONENT: Would I --
           BY MR. HOAG:
       20
       21
                Q
                     Yes.
                 Α
       22
                     -- if they asked?
                    Well, if one of your children said, some
       23
       24
          kids at school are smoking cigarettes, are they safe,
       25
           what would you say?
140
        1
                      MR. FOWLER: Object to the form.
                      THE DEPONENT: I would say that there is,
        2
            they have been designated as a risk factor; there is
        3
        4
            a statistical association.
            BY MR. HOAG:
        5
                     So you would tell your children there is a
        6
        7
            statistical association; is that right?
        8
                 A Between smoking and certain diseases.
                     And that's pretty much as far as you would
        9
            go in your advice to your kids; is that right?
       10
       11
                     Other than what I've already said; that's
                A
       12 correct.
       13
                     Would you tell your children that it hasn't
       14 really been proven that cigarettes cause any disease?
```

teenager?

```
15
                      MR. FOWLER: Object to the form.
                      THE DEPONENT: I think that, you know, this
       16
       17
           is hypothetical because it would depend on the
       18
           question and the situation.
       19
            BY MR. HOAG:
       20
                    Well, hypothetically, if one of your
                Q
            children said to you, Mom, has it been proven that
       21
            cigarettes cause lung cancer, what would you say?
       22
                 A What I just said, that technically
       23
       24
            speaking, scientifically speaking the studies that
       25
            would be required in order to prove that are not
141
           there.
        1
                     You would say the same thing for heart
        2
        3
           disease and emphysema, right?
        4
                A
                    I would say that there are statistical
        5
           associations between smoking and those diseases.
        6
            Q Have you ever known anyone who smoked
        7
            cigarettes who did get a disease?
        8
                     MR. FOWLER: Objection to the form of the
        9
            question. That's vague.
       10
            BY MR. HOAG:
                Q Let me be more specific. Have you ever
       11
       12
           known anyone that smoked cigarettes who has
       13 contracted lung cancer?
       14
                A I'm trying to think. Gee, maybe remotely,
       15 but certainly not, I don't believe, directly, in my
           recollection, right now. I can't recall.
       16
                     Do you ever fly on airplanes?
       17
       18
                 Α
                     Yes.
       19
                     Did you ever fly on airplanes when smoking
                Q
       20
            was allowed?
       21
               A Yes.
       22
                 Q
                    I guess sometimes you fly international
            flights now, don't you?
       23
       24
                A Yes.
       25
                 Q
                     So you sometimes have occasion to fly on
142
            international flights where smoking is still allowed,
        1
        2
           correct?
        3
                Α
                     Yes.
        4
                    And when you fly on a flight where smoking
            is allowed, do you sit in the smoking section?
        5
        6
                 A Sometimes, yes.
        7
                     Does it matter to you which section you sit
        8
           in?
        9
                A No.
       10
                     You don't specifically ask to sit in a
       11 non-smoking section; is that correct?
       12
                A I didn't hear all of that question.
       13
                     You don't specifically request to sit in
       14
           the non-smoking section of the aircraft; is that
       15
            correct?
       16
                     I don't specifically get my ticket, so I
       17
            can't really -- I don't really know how that's
       18
            handled.
       19
                     No one says to you, do you want the
       20
            non-smoking or smoking section?
       21
                 A No one says that.
       22
                     Do you normally sit in the smoking section
       23 when you fly in an aircraft for an international
       24 flight?
       25
               A Sometimes I do and sometimes I don't.
```

```
It just doesn't matter to you?
                 Q
         1
         2.
                 Α
                      That's correct.
         3
                      So other peoples' cigarette smoke doesn't
            bother you, whether you smoke or not; is that
         5
             correct?
         6
                      That's correct.
                 Α
         7
                      Have you ever smoked a cigarette on an
                 0
        8
            airplane?
        9
                 A Not that I can recall, no.
        10
                     Have you ever heard anyone on an airplane
        11
            complain about the cigarette smoke?
        12
                      No.
        13
                      Have you ever seen more than ten people
        14
             smoking on an airplane at the same time?
        15
                 Α
                     No.
        16
                      What's the most number of people you have
       17
             ever seen smoking on an airplane at the same time?
        18
                 A Whoa, I would say -- at the same time or
        19
             the most number of smoking seats?
        20
                      That are smoking. I don't mean
        21
             simultaneously they're puffing in unison. They all
            have cigarettes at the same time.
        22
        23
                 A I would say two or three, generally
        24
             speaking, are smoking at the same time.
        25
                      Have you ever seen as many, observed as
144
            many as ten people on an airplane flight who had a
         1
         2
            cigarette lit at the same time?
                      Personally, no.
         3
                 Α
         4
                      When the cigarette, when the no-smoking
         5
             light on -- international flights still have a
         6
             smoking light, a no-smoking light, correct?
                     No, many international flights don't have
         7
        8
             smoking anymore.
        9
                      Some of them do, though, correct?
                 Q
        10
                      Yes, some of them do.
                 Α
        11
                      Have you flown on any of those within the
                 0
        12
             last year where cigarette smoking was allowed?
       13
                 A No, I haven't.
       14
                      When was the last time you were a passenger
       15
            on an aircraft where cigarette smoking was allowed?
                     Probably a couple of years ago.
       16
        17
                      When cigarette smoking was allowed on
        18
             aircraft that you flew in, did you notice whether or
        19
            not people tended to smoke more heavily immediately
        20
            upon the cigarette smoking light, no-smoking light
        21
            going off?
        22
                      MR. FOWLER: I'm sorry, John, I don't
        23
            understand that question.
        24
            BY MR. HOAG:
        25
                      I'll rephrase it. Were there any times
145
         1
            during the flight when you noticed that cigarette
             smoking was more frequent?
         3
                 A I can't say that I personally paid
         4
             attention to that, nor would I be necessarily in a
         5
            position in an airline to observe every smoker at the
         6
            same time.
         7
                      When you flew in aircraft that smoking was
         8
            allowed in, did you sit in the smoking section less
         9
            frequently than you sat in the no-smoking section or
        10
            do you know?
```

```
Oh, I'd say a number of years ago when
       11
       12 smoking was allowed on all international flights, I
       13 would be sitting most of the time in the smoking
       14 section.
       15
                Q
                    Have you ever known anyone who has tried to
       16
            quit smoking?
       17
                A I don't understand your question. Tried?
       18
                     Uh-huh.
       19
                A
                    I know people who did quit. I'm not sure I
       20 could tell when someone was trying.
       21
            Q So you've known people that have quit
       22 smoking?
       23
               A
                    Yes.
                     They quit smoking for health reasons?
       24
                Q
       25
                Α
                    I don't know.
146
        1
                    Did anyone share with you that they were
                Q
        2 trying to quit or actually quit smoking for health
           reasons?
        4
                A Not personally, no.
        5
                Q Have you ever known anyone who tried to
        6
            quit smoking but was unable to quit smoking?
        7
               A Not personally, no.
                     MR. FOWLER: Object to the form.
        8
        9 BY MR. HOAG:
       10
               Q You will admit that there are some people
       11 who sincerely try to quit smoking but simply are not
           able to do so, wouldn't you admit that?
       12
                     MR. FOWLER: Object to the form of the
       13
       14
          question.
       15
                     THE DEPONENT: As I said before, I don't
       16 have personal knowledge of that.
       17 BY MR. HOAG:
                Q Is it your belief that any smoker,
       18
       19 regardless of how many years they have smoked and how
       20 heavy a smoker they are, can quit cold turkey if they
       21
           can make up their mind to do so?
       22
                A I lost part of that question, I'm sorry.
       23
                     I'11 --
       24
                     MR. FOWLER: It broke up a little bit,
       25
           John, sorry.
147
           BY MR. HOAG:
        1
             Q I'll repeat it. Is it your belief that any
        2
        3
           smoker, irrespective of how many years they have
        4
            smoked and how heavy a smoker they are, can quit
            smoking, cold turkey, if they just want, if they just
        5
           make up their mind to do it?
        7
                A Certainly many people have.
                Q Is it your position that anybody that wants
        8
        9
           to quit can quit smoking?
                A Yes.
       10
       11
                    You will agree that as a practical matter
       12 the tobacco industry, including Philip Morris, if it
       13
            wants to remain in the business of selling tobacco
       14
            and cigarettes, must replace quitting and dying
            smokers with young smokers, correct?
       15
       16
                     MR. FOWLER: Object to the form of the
       17
           question.
                     THE DEPONENT: I disagree with the
       18
       19 characterization.
       20 BY MR. HOAG:
       21
               Q You disagree that they must replace
```

```
23
            A I disagree with the characterization, and
       24 therefore I cannot address it. It does not represent
       25
           a situation that I'm familiar with.
148
        1
                    You are aware that 400,000 Americans a year
            die as a result of diseases contracted from smoking
        3
            cigarettes, correct?
        4
                     MR. FOWLER: Object to the form of the
        5
           question.
           BY MR. HOAG:
        6
        7
                Q You are aware of that, correct?
        8
                    I'm sorry, you broke up. Could you repeat
        9
           that again?
       10
                     You are aware that approximately 400,000
       11
           Americans die every year from diseases contracted as
       12
            a result of smoking cigarettes, correct?
                     MR. FOWLER: Same objection.
       13
       14
                     THE DEPONENT: I'm aware that that's a
       15 number that has been utilized frequently. But I'm
       16 also aware that the basic way that that number is
           arrived at is a calculation, and that there are many
       17
           other factors involved, and that if one were to take
       18
       19
           all of the factors involved, we would have more
       20 people dying in the United States than die every
       21 year.
       22 BY MR. HOAG:
               Q Okay. So you do not believe that 400,000
       23
       24
           people die as a result of cigarette smoking every
            year; is that correct?
149
                    I don't believe that that is a technically
        1
                A
           data supported number.
                Q Do you believe any people in the United
            States die from smoking cigarettes?
        5
                A As I indicated, smoking can be a risk
           factor, therefore it's possible, but it cannot be
        6
            determined based on the data that we have.
        7
                Q So you don't know whether even a single
        8
        9 person dies from smoking cigarettes; is that correct?
       10
                     MR. FOWLER: Object to the form.
                     THE DEPONENT: As I said, the technical
       11
           data to support that statement is not available.
       12
       13
           BY MR. HOAG:
       14
                Q You will agree that a lot of tobacco
       15
          advertisement is directed towards the youth market,
       16 correct?
       17
                     MR. FOWLER: Object to the form of the
       18 question.
       19
                     THE DEPONENT: I disagree with the
       20 characterization, and so I do not agree with your
       21 statement.
       22 BY MR. HOAG:
       23
            Q One of the cigarettes that's marketed by
       24 Philip Morris is Marlboro, correct?
       25
                     Yes.
150
        1
                     You really can't miss those billboards with
            the cowboys riding around on the billboards. You can
        2
        3
            see those, right?
        4
                     MR. FOWLER: Object to the form.
        5
                      THE DEPONENT: You broke up a little bit.
        6 BY MR. HOAG:
```

quitting and dying smokers with young smokers?

```
Okay. I'll repeat the question, okay?
        8
                 A
                     Okay.
        9
                Q
                     The billboards for Marlboro, you've seen
       10 those, correct?
       11
                A Yes.
       12
                Q Those billboards obviously appeal to young
       13
            people, correct?
       14
                      MR. FOWLER: Object to the form.
       15
                      THE DEPONENT: Not to my knowledge.
       16 BY MR. HOAG:
       17
               Q What's depicted in the Marlboro billboards?
       18
                     There are many different kinds of
       19
            billboards.
       20
                     You have heard of the Marlboro Man,
                Q
            correct?
       21
       22
                A
                     Yes.
       2.3
                 Q He's depicted as a cowboy, correct?
       24
                 A
                     Yes.
       25
                     So the image of a cowboy appeals to
151
        1
           youngsters?
                     MR. FOWLER: Object to the form, also it's
        2
           outside this witness' area of expertise. She's not
        3
        4
            an advertising expert.
        5
                      THE DEPONENT: I repeat, not to my
        6
            knowledge.
        7
            BY MR. HOAG:
        8
                     What does a frank statement to cigarette
               Q
        9
            smokers mean to you?
       10
             A It was a statement put out by the tobacco
       11
            industry a number of years ago.
       12
               Q And what did the statement say?
       13
                     It's been a while since I've reviewed it,
            and I certainly have not memorized it.
       14
       15
                Q Well, do you recall that among other things
       16
            it promised that the cigarette industry would mount a
       17
            research effort to explore whether cigarette smoking
            caused lung cancer or any other disease?
       18
       19
                      MR. HOAG: I'm going to object to this line
       20 of questioning. We don't have that document here in
       21 front of us, and you know, answering questions
            without the document here is obviously problematic at
       2.2
       23
           best, and so I will object to this line of
       24
            questioning, without the document being in front of
       25
            the witness.
152
            BY MR. HOAG:
        1
                 Q Okay. I'm asking you do you recall whether
        3
            or not, among other things, the frank statement
            promised that the cigarette industry would mount a
        5
            research effort to explore whether cigarette smoking
        6
            caused lung cancer or any other disease?
        7
                      MR. FOWLER: Same objection.
        8
                      THE DEPONENT: I don't recall if it stated
        9
            that specifically as you basically just recited it,
            but I do recall that it did indicate that the
       10
            industry would do further work.
       11
            BY MR. HOAG:
       12
       13
                     Now, has the industry position changed at
       14
            all since that frank statement was written concerning
       15
            whether or not cigarette smoking causes any disease?
       16
                      MR. FOWLER: Object to the form.
       17
                      THE DEPONENT: I am not a representative of
```

```
19
            experience and knowledge, I have no knowledge that it
       20 has changed, based on where I sit.
       21
           BY MR. HOAG:
       22
                 Q
                     Have you read cigarette company responses
       23 to research conducted to show cancer, cigarette
       24
            smoking causes lung cancer, back in the 1950s? Do
       25
            you recall ever reading cigarette company responses
153
        1
           to that?
                      MR. FOWLER: I'm going to object to the
        2
        3
            form. I'm not sure what this reference is to.
                      THE DEPONENT: I may have. I don't know
        4
        5
            what you're talking about.
        6
            BY MR. HOAG:
        7
                 Q
                     Well, do you know that the cigarette
           company responses back in the 1950s are the same as
        8
        9
           the cigarette company responses are now, as to
       10
            whether or not cigarette smoking causes lung cancer
       11
            or any other disease? Are you aware of that?
                      MR. FOWLER: I'm going to object again --
       12
                      THE DEPONENT: Yeah.
       13
       14
                      MR. FOWLER: -- because the witness has
       15
           said she doesn't recall exactly what the frank
       16 statement says, and it's hard to compare when you
       17 don't have a comparison.
                     MR. HOAG: Well, now, I'm not asking her
       18
       19
            about the frank statement specifically, I'm asking
            her whether she's aware of some things.
       20
       21
                     THE DEPONENT: If you could just repeat the
       22 question, sorry.
       23 BY MR. HOAG:
       24
                Q Okay. I'll try to rephrase the question.
       25 Are you aware of whether or not the cigarette
154
           industry has ever changed its position since the
        1
            1950s on whether cigarette smoking causes lung cancer
        3
            or any other diseases?
                      MR. FOWLER: Again, I'm objecting to the
        4
        5
            form of the question. There's no foundation laid.
            The witness has already testified what Philip Morris
        6
        7
            stated concerning smoking and health.
                     MR. HOAG: Greg, I understand you're
        8
            objecting. I would just like her to answer it.
        9
       10
            BY MR. HOAG:
       11
                 Q Now, go ahead.
       12
                 A I believe that there has been a lot of data
       13 obtained between the 1950s and today. And to the
       14 degree that that data is utilized and evaluated, I
       15
            certainly think that in that period of time the
       16
            industry and certainly Philip Morris recognizes that
       17
            smoking is a risk factor, for example.
       18
                     Well, you're aware that in the 1950s the
       19 cigarette industry and Philip Morris said there was
       20 insufficient evidence to prove cigarette smoking
       21 caused lung cancer, correct?
       22
                      MR. FOWLER: Object to the form.
       23
                      THE DEPONENT: I don't have that document,
            I can't attest to that specifically.
       24
       25
155
        1 BY MR. HOAG:
                Q Well, you're aware that now as we speak
```

the industry, per se, but I can say that based on my

```
Philip Morris and the cigarette industry -- with the
            exception perhaps of Liggett -- still says that
            there's insufficient evidence to prove that cigarette
        5
            smoking causes lung cancer or any other disease,
        7
            correct?
        8
                      MR. FOWLER: Object to the form.
                      THE DEPONENT: As I already indicated, the
        9
            scientific evidence is not there that that is a
       10
       11
           proven fact that cigarette smoking causes lung cancer
       12 or any other disease.
       13 BY MR. HOAG:
       14
             Q And as a scientist who works for Philip
       15 Morris, that's your position, correct?
       16
                     MR. FOWLER: Object to the form.
                      THE DEPONENT: Yeah. I'm not sure I
       17
       18
           understand your question. I think there's an
       19
           implication there that I don't understand.
       20 BY MR. HOAG:
       21
            Q What implication did you think was there
       22 that you didn't understand?
                A I'm not sure. Could you repeat that?

Q As a scientist for Philip Morris, it's your
       23
       24
       25
           position that there is not sufficient evidence to
156
        1 prove that cigarette smoking causes lung cancer or
           any other disease, correct?
        3
                     MR. FOWLER: Same objection.
                      THE DEPONENT: As a scientist, that
        4
        5
           information does not exist; that it is proven.
        6
            BY MR. HOAG:
        7
                     Let me first ask, do you ever go out to eat
        8 at restaurants?
        9
       10
                 Q And when you go out to eat at restaurants,
       11 do you sit in the non-smoking section or the smoking
       12
          section?
                A I say it doesn't matter.
       13
                 Q
       14
                     Okay. You don't care one way or the other?
       15
                 A That's correct.
       16
                     And when you go out to a restaurant to eat,
       17 do you take your family or does your family go?
       18
                A Yes.
       19
                     So does any member of your family care
       20 whether they sit in the smoking or non-smoking
       21 section in any restaurant?
       22
                 A I haven't asked them specifically.
       23
                    But when you go as a family, there's no
       24 preference expressed? You just sit wherever; is that
       25 correct?
157
        1
                 A If we're asked, we say it doesn't make any
            difference.
        3
             Q Do you have any concern at all about the
        4 health affects of environmental tobacco smoke?
        5
                      MR. FOWLER: Object to the form.
        6
                      THE DEPONENT: To the degree that I have
        7
            already stated that there have been some studies that
            indicate that there is a very weak, if any, risk
        8
            factor association; that would be the evidence that's
        9
       10 available to your point.
       11 BY MR. HOAG:
                Q Are you familiar with the EPA report
       13 published in 1993?
```

```
I'm generally familiar with it, yes.
       14
                Α
                Q Have you read it?
       15
       16
                    I don't think I have read the whole thing,
                A
       17 no, but I'm certainly familiar with aspects of the
       18 report.
       19
                    Have you read the underlying studies that
       20
            are referred to in the report?
       21
               A I have not done a technical analysis of
       22 those studies.
       23
               Q Now, this particular case that you're being
       24 deposed about today is the Broin case. Do you know
       25
           anything about the Broin case?
158
                     In general, yes.
        1
        2
                     What's your understanding of the case?
        3
                 Α
                     Well, I have reviewed very briefly aspects
        4
            of the complaint, and I understand it relates to
        5
            airlines and exposure to environmental tobacco smoke.
                Q When were you first contacted about being a
        7
            witness in the Broin case?
                A I would say that's been fairly recently,
        8
        9
            within the last month or two.
       10
                Q Okay. Have you read any depositions from
       11 the Broin case?
       12
               A Yes.
       13
                    Which ones?
                Q
       14
               A A doctor, a statistician.
       15
                    Dr. Bookstein?
                Q
                    No.
                A
       16
       17
                Q
                     It was a statistician?
       18
               A Yeah, Edwin something.
       19
               Q Any other depositions you've read?
                     MR. FOWLER: In the Broin case?
       20
                     MR. HOAG: Yes.
       21
                     THE DEPONENT: I might have, but I really,
       2.2
       23 I've read several depositions, but I'm not sure if
       24
            they were specifically for Broin, and that's my
           problem right now. To the degree that Dr. Morgan's
       25
159
        1
           depositions were Broin, then they would be included.
           BY MR. HOAG:
        3
                    Have you read more than one deposition of
                Q
        4
           Dr. Morgan?
                A Yes, I've read his last one completely and
        5
        6
           his first one, I just received the parts that were
        7
            relevant to me specifically.
                    By the last one completely, you mean the
        8
        9 one that was done where I asked questions and also
           Greg asked questions?
       10
       11
               A Yes.
                Q
       12
                    How long ago did you read that?
       13
                    I believe I received it maybe a week after
                Α
       14 the deposition.
       15
               Q Now, aside from the compensation you
       16
            already receive as an employee of Philip Morris, are
       17
            you receiving any additional compensation for serving
            as an expert witness?
       18
       19
                Α
                     No.
       20
                     MR. HOAG: Let me take about a five-minute
       21
           break, and I will wrap this up in the next few
       22 minutes.
       23
                     (Recess taken)
       24
                     MR. FOWLER: For the record, I will state
```

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160
        1
           from Dr. Ellis' car, and it's been marked as
            Deposition Exhibit Number 1.
                     MR. HOAG: Okay. Thanks. Are we ready?
        3
        4
                     MR. FOWLER: Yes.
        5
            BY MR. HOAG:
        6
                     Okay. Just a couple more questions. Other
            than the deposition of, depositions of Dr. Morgan and
        7
            a statistician whose name you don't recall right now,
        8
            are there any other depositions that you've reviewed
        9
            that you can recollect?
       10
                A I've reviewed a number of depositions, but
       11
       12
            specifically for the Broin case those are the only
       13
            ones that I know are specifically related, that I can
       14
           recall.
       15
                     Okay. Did you review any documents
                Q
       16
            specifically for the Broin case?
       17
                A I've been doing a lot of reading in a
       18 number of different areas. As I said earlier, my
       19
           total knowledge, experience, et cetera and the list
       20
            of documents and references that you were provided,
       21
            I've been reviewing on and off, as well as the
       22 current literature.
       23
                     Are you familiar with a study that Philip
       24 Morris was involved in related to smoking patterns of
       25 hyperkinetic children?
161
                     MR. FOWLER: Object to the form of the
        1
        2
           question.
        3
                     THE DEPONENT: Not personally, no.
        4
          BY MR. HOAG:
        5
            Q When you say, not personally, what do you
        6
            mean?
        7
                A I was not personally involved in that
        8
            study, and I don't have personal knowledge of it.
        9
                 Q Do you know anything about it?
                     MR. FOWLER: Object to the form.
       10
       11 BY MR. HOAG:
       12
               Q You can answer.
       13
                 A As I stated, no.
                Q Do you know whether Philip Morris ever did
       14
       15
            a study or attempted to do a study on the smoking
       16
            habits of hyperkinetic children?
       17
                     MR. FOWLER: Object to the form. It's
       18
          compound.
       19
           BY MR. HOAG:
       20
               Q You can answer.
       21
                A
                     The smoking habits of hyperkinetic
       22 children?
       23
                Q Right.
       24
                 A
                     Not specifically, no.
       25
                     Are you aware of any study that Philip
162
            Morris ever attempted to do concerning hyperkinetic
            children?
        2
        3
                     I believe there was an allegation and there
        4
            was some documentation of a proposal for a study a
            number of years ago that related to hyperkinetic
        5
        6
            children, but it is my knowledge that there's no
        7
            evidence that that study was performed.
        8
                     What documentary evidence did you see
        9 concerning the attempt to do a study on hyperkinetic
```

that I made a copy of the document that we received

```
11
           A
                    I believe most of my knowledge comes from
       12 the media.
       13
               Q Have you seen any Philip Morris internal
           documents related to that issue?
       14
       15
               A I may have reviewed those a while back,
       16
           maybe a year, or when that was in the media. I may
       17
           have asked for a literature review of that to see
       18
           what documents were available.
       19
                Q Did you ever ascertain why Philip Morris
       20 was attempting to do a study of hyperkinetic
       21 children?
       22
               A
                    I never asked the question, and I never
       23 ascertained the answer.
       24
            Q Why did you come to review the literature
       25
          regarding that issue?
163
        1
                     MR. FOWLER: Object to the form.
                     THE DEPONENT: Again, because of the media
        3
           reports.
        4
           BY MR. HOAG:
        5
             Q Do you have any opinion as to why Philip
           Morris would attempt to conduct a study of
        6
        7
           hyperkinetic children?
                     MR. FOWLER: I'm going to object to calling
        8
        9
          for an opinion. This witness is not designated as an
       10
           expert in that particular study or area.
           BY MR. HOAG:
       11
                     I'm asking the question, do you?
       12
                Q
       13
                Α
                    No.
       14
                    Have you seen or read any news accounts
                Q
       15 concerning the Broin case?
       16
           A I believe it's been mentioned in certain
       17 articles.
                   Have you read the articles?
       18
                Q
                    Some of them.
       19
                Α
                Q What specific articles do you recollect
       20
       21 having read concerning the Broin case?
       22
               A I don't recollect any specific articles
       23 specifically about the Broin case, and I can't point
       24 to any specific article where I have read about the
       25 Broin case, but I do recall reading about, in
164
           general, the litigation that is ongoing and obviously
        2
           Broin being one of the issues that was mentioned in
        3
           some of the media articles.
        4
               Q Have you read Dr. Carchman's deposition?
        5
                A No.
        6
                Q C-A-R-C-H-M-A-N. Do you know Dr. Carchman?
        7
                A
                    Yes.
                Q
                    Who is he?
        8
                   He is the group director of scientific
        9
               A
       10 affairs at Philip Morris R and D.
       11
               Q Have you discussed this case with
       12 Dr. Carchman?
       13
                    I had some conversations with him about
           some of the information associated that would be
       14
       15
           relevant to the case, yes.
                Q Did he discuss his deposition with you?
       16
       17
                    We talked in general about some of the
       18 topics that came up in the deposition.
       19
               Q What topics did he discuss with you that
       20 came up in the deposition?
```

children?

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21
                      MR. FOWLER: Object to the form.
                      THE DEPONENT: We reviewed some of the
       22
       23
            topics that came up in his, in the deposition,
       24
            basically.
       25
165
            BY MR. HOAG:
        1
                     Did he tell you that I asked him why the
            person who ordered that Dr. Morgan shred documents
        3
        4
            would be the person who was supervising or requesting
        5
            a study, related to Dr. Morgan's deposition?
                      MR. FOWLER: I'm going to object to the
        6
        7
            form.
            BY MR. HOAG:
        8
        9
                Q Did he tell you that?
       10
                 Α
                     He did mention there was some question
       11 related to that issue, but not in the same words,
       12
           necessarily, that you used.
       13
            Q And did you rehearse that question prior to
       14
            me taking this deposition today?
       15
                     MR. FOWLER: Object to the form of the
           question, if you're talking about her conversations
       16
       17
            with lawyers, and I'm going to object to that
       18
            question as privileged.
       19
            BY MR. HOAG:
       20
                Q You can answer it.
       21
                     MR. FOWLER: No, not to the extent that it
       22 involves attorney/client communication.
       23
          BY MR. HOAG:
       24
                Q
                     I'm asking you if you rehearsed the answer
       25
           to that question.
166
        1
                     I've had no rehearsal with anyone, lawyer
            or non-lawyer, about the answer to that question.
                 Q Were you asked that question during
        3
        4
            practice depositions?
        5
                     No.
                 A
        6
                      So you were just told by Dr. Carchman prior
        7
            to this deposition that that was a question that I
        8
            asked him, correct?
        9
                     That's correct.
                 A
       10
                     So you knew that would also be a question I
       11
            would ask you?
       12
                 A No.
       13
                 Q
                     You assumed it would be a question I would
       14 ask you, correct?
       15
                 Α
                     No.
       16
                      Well, let me ask you, if you admitted or if
       17
            you said on the record that you instructed that
       18
            Dr. Morgan's documentation of the NNK nitrosamine
       19
            level be destroyed, you wouldn't be sitting here
       20
            today, would you?
       21
                      MR. FOWLER: I'm going to object to the
       22
            form of the question. The witness can't answer a
       23
            question phrased like that.
       24
                      THE DEPONENT: I don't understand the
       25
            question, quite frankly.
167
            BY MR. HOAG:
        1
        2
                Q Well, you make a lot of money as a Philip
        3
            Morris scientist, don't you?
                     MR. FOWLER: Object to the form of the
           question, argumentative.
```

```
BY MR. HOAG:
        6
        7
             Q Do you make a lot of money as a Philip
        8 Morris scientist?
        9
                     It's relative.
       10
                     MR. FOWLER: Objection.
       11 BY MR. HOAG:
       12
               Q Pardon me?
       13
                     A lot, is relative.
                 Α
       14
                     Counting your bonus and your stock options
       15 and your base salary, you make several hundred
       16 thousand dollars a year as a Philip Morris scientist,
       17 correct?
       18
                     MR. FOWLER: Object to the form.
                     THE DEPONENT: Yes.
       19
       20
           BY MR. HOAG:
                     And the profitability of Philip Morris
       21
           affects your level of compensation, doesn't it?
       22
       23
                A Indirectly, for a certain portion of it.
                 Q And Dr. Morgan's testimony has a direct
       25 impact on the future profitability of Philip Morris,
168
        1
          doesn't it?
        2
                     MR. FOWLER: I object to the form of the
        3
           question. You're calling for the witness to
        4 speculate.
        5
           BY MR. HOAG:
        6
                 0
                     You can answer.
        7
                     I can't see how testimony that is not
           substantiated by evidence, and testimony that is
        8
        9
            counter-contradicted by the current evidence, would
       10
           have -- and I hope it would not have -- in a
       11 reasonable fashion, any impact.
       12
                     MR. HOAG: I don't have any other
       13
           questions.
                      MR. FOWLER: And I don't have any
       14
       15
           questions.
       16
                      MR. HOAG: Okay. Obviously, I want a copy
       17
           of the deposition.
       18
                      MR. FOWLER: Sorry, you just cut out.
       19
                      MR. HOAG: We are just ordering a copy of
       20 the deposition, of course, and I will talk to you
       21 later, Greg, I'm sure. And Doctor, thank you very
           much.
       22
                      MR. FOWLER: Okay. And Doctor, do you want
       23
       2.4
           to read and sign the deposition? She has indicated
       25
           yes, so we'll read and sign.
169
        1
                    (And further this deponent saith not)
        2
                  (The deposition concluded at 12:58 p.m.)
        3
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      25
170
                       CERTIFICATE
       1
                  I, CATHY LYNN ELLIS, PHD, do hereby certify
       2
          that I have read the foregoing deposition given by me
       3
          on Wednesday, May 28, 1997, and I certify it to be a
       4
       5
          true and correct transcript of my said deposition.
       6
          In the event that I desire to make changes in the
       7
          form or substance of my deposition, said changes will
       8
          be listed below along with my reasons for making
       9
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                       CHANGE AND REASON FOR MAKING CHANGE
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                              Cathy Lynn Ellis, PhD
      19
      20
          Sworn and subscribed
      21
          to before me this
                          _____, 1997
      22
          _____ day of _____
      23
      24
          Notary Public
      25
          My Commission Expires:
```

1 COMMONWEALTH OF VIRGINIA AT LARGE, to wit: I, Sally Valentine Qualls, Notary Public 2. 3 in and for the Commonwealth of Virginia at Large, 4 and whose commission expires December 31, 1999, do 5 certify that the aforementioned appeared before me, was sworn by me, and was thereupon examined by counsel; and that to the best of my abilities the foregoing is a true, correct, and full transcript 8 9 of the testimony adduced. 10 I further certify that I am neither related 11 to nor associated with any counsel or party to this 12 proceeding, nor otherwise interested in the event 13 thereof. Given under my hand at Richmond, Virginia, 14 15 this 29th day of May, 1997. 16 17 Sally Valentine Qualls - Notary Public 18 Commonwealth of Virginia at Large 19 20 21 22 23 24 25